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ESSAYS IN ECONOMIC THEORY

Some BORZOI *Books*
Fall, 1923

PRINCIPLES OF PUBLIC FINANCE
Hugh Dalton

THE CAPITAL LEVY EXPLAINED
Hugh Dalton

ESSAYS IN ECONOMIC THEORY
Simon Nelson Patten

THE TREND OF ECONOMICS
Various Writers

POLITICS AND PROGRESS
Ramsay Muir

IN PRISON
Kate Richards O'Hare

STABILISATION
E. M. H. Lloyd

OUT OF WORK
G. D. H. Cole

FASCISM
Odon Por

ESSAYS IN ECONOMIC THEORY

by

SIMON NELSON PATTEN

Late Professor of Political Economy in the University of Pennsylvania

Edited by REXFORD GUY TUGWELL

With an Introduction by HENRY ROGERS SEAGER

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EDITOR'S PREFACE

The task of choosing for reprinting certain among the hitherto uncollected periodical writings of Professor Patten involved a number of dilemmas which had to be resolved by the several practical considerations that must always partially govern the issuing of a book of this kind. What I wanted to do, of course, was to include everything. My enthusiasm for Professor Patten as a teacher, which was an old one, was restimulated and, indeed, greatly added to, as I went about surveying much of his work that had been before more or less unfamiliar. When I came to study it consecutively and as a whole, and to follow out its numerous implications, it appeared immensely more important and more consistent than even I had thought. He was a great teacher; but also he was a great philosopher.

The first consideration, in this volume, has been to exclude pretty much everything that does not bear upon economic theory. The intention has been to provide a source for students of economic theory in which there could be traced pretty much the whole development of Professor Patten's economic thought. Of course this volume will have to be supplemented for this purpose by the study of his other books, such as *The Premises of Political Economy,* which—if we exclude his doctoral dissertation at Halle—was the first of them, *The Consumption of Wealth, The Economic Basis of Protection, The Principles of Rational Taxation, The Theory of Prosperity,* and *The New Basis of Civilization.* It is unfortunate that most of these are at the present time out of print, and so not available for purchase; but the misfortune is mitigated somewhat by the fact that most University libraries are well supplied with copies, so that the student may find his way to them there.

In editing the various essays I have been torn between the desire to leave the work exactly as Dr. Patten put it and the desire to make corrections and emendations where they seemed obviously necessary. The result is, as might be expected, compromise. Anyone familiar with Dr. Patten's habit of mind, knows his carelessness about the details of publication and the like tasks. His rapidity of change from one problem to another and his dislike for coming back to a problem after he had finished his creative work on it, caused even his printed articles to be left in such shape as to need much revision. It would be a purely antiquarian interest that would wish to have mistakes in tense and diction left as they were made, I felt. It is unfortunate that he did not do this work himself; but he did not and it needed doing. For this reason, I have not hesitated to make numerous revisions of grammar and diction. Some of these have been indicated by bracketing; but only a few. In no case, however, has the thought been changed. My whole interest has been simply to make it more clear.

In one case I happened to have a copy of a printed version on the margins

of which Dr. Patten had made a few corrections of his own. These were incorporated in the present text. But for the most part, I must accept the responsibility for the departures that have been made from the texts as they originally appeared.

In order to achieve some continuity of development, it has seemed best to preserve the chronological order of the appearance of the essays in print except in one or two cases where they were definitely interrelated. For instance the essay called "Some Explanation Relating to the Theory of Dynamic Economics" obviously belonged to the longer essay immediately preceding it called "The Theory of Dynamic Economics" and it was therefore removed from its strict chronological place for this purpose. These departures have not been important, however, and, for the most part, the student will find himself following the thought of Professor Patten from its first beginnings to a year or two before he finally laid down the pencil upon his last manuscript.

It would have been desirable and if it had been also possible I should have included certain of his older work that appeared first in monograph form and has been for a long time out of print. But such things as *The Consumption of Wealth,* and *The Stability of Prices* simply had to be left out because of the limitations of space. However a very early article of his which was a statement of his consumption theory and which appeared in a little book of short economic monographs published by the Science Company, has been included; and his treatment of prices appears in several later articles so that the omission is not so serious as might at first be thought. Also, on account of the limitations of space, two articles which appeared in 1893 had to be omitted in favor of others that seemed to me more important for the purpose here. These are "Cost and Utility" and "Cost and Expense," which were printed first in Vol. III of *The Annals of the American Academy of Political and Social Science.* And there are certain other omissions that ought to be noted consisting largely of short papers of comments on topics raised at meetings of The American Economic Association. There are several of these.

All of these omissions were made because of the necessity of choosing among so large a number of possibilities; and they were made, really, in favor of certain essays which, I felt, ought certainly to be included because of their importance for economic theory, although they may seem from their titles to be either not altogether economic or not of permanent value. I refer to: "Can Economics Furnish an Objective Standard for Morality," "Pragmatism and Social Science," "The Political Significance of Recent Economic Theories," and "The Failure of Liberal Idealism." The group of articles written during the period of the Great War discussing taxation and finance problems in a time of national stress, I had at first intended to omit as of perhaps only passing interest, but study of them indicated their real contribution and their importance to the intellectual history of their author. For the last years of his life were years when the opinions of men were tested in flame; and these articles of his at the end of his career show, better than anything else could, his real devotion to reason and the long consistency of his

attitudes. It is unfortunate that all of them, instead of only one or two, could not have been reprinted here, but the space at my command made it quite impossible.

There are a number of obligations that have to be acknowledged. One of these is my own obligation to all those many people who have assisted me so generously with advice and criticism concerning this collection; and another is the debt that all who read these essays owe along with me to the heirs of Professor Patten, his brothers and his sister, who have given their permission for this reprinting. And then there are the acknowledgments that must be made to *The American Economic Review, The American Journal of Sociology, The Quarterly Journal of Economics, The Yale Review, The Journal of Speculative Philosophy, The Journal of Philosophy, Psychology and Scientific Methods, The Popular Science Monthly, The Political Science Quarterly, The Annals of The American Academy of Political and Social Science,* and *The Freeman* for permission to reprint essays which appeared first in those Journals. A more specific acknowledgment, giving the exact reference to the periodical, will be found as a footnote to each title in the volume.

There still remains much uncollected periodical material which ought to be reprinted and so made readily available. There is not much left in the field of economic theory but there is a great deal of comment on social movements, economic institutions, and the working of social forces that ought to be collected into a volume; and there is a coherent and well-knit series of essays on economic psychology, published mostly in Professor Patten's later life, that also ought to be put together between the covers of a single book. Their publication must depend somewhat upon the commercial success of the present collection unless some of the learned societies which owe much to his influence come forward with financial support for their publication.

It seems proper to note here for the information of students of Professor Patten, that two memorial volumes have been issued, both of which are very largely made up of tributes to him of former students and associates. One of these was issued as a supplement to *The Annals* and the other as a supplement to the *Amercian Economic Review,* both in 1923. In the *Annais* volume will be found a comprehensive bibliography of all of his writings.

My own debt to Professor Patten I have tried to pay in part by the task of arranging for the publication of this volume. But it is characteristic of debts of this kind that they can never be paid to the person to whom they are owed; and so I have had to be content with such discharge of the obligation as could be made to others. If he could have chosen, however, it is certain that he would have had all the debts that others owed to him paid into the treasury of the advancement of learning. He was like that. And so if this volume proves to be of use, I shall be satisfied and shall feel that what has been done has been done in the spirit, at least, that he would have approved.

Columbia University
July, 1923.

Rexford Guy Tugwell

1923
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INTRODUCTION

Simon Nelson Patten was the most original and suggestive economist that America has yet produced. His active and fertile mind was never satisfied with superficial explanations of social phenomena. He was always seeking for the secret springs of human conduct and the hidden links which connect events with the elemental facts of human and physical nature. In its pursuit of truth his mind was constantly confronted with new problems. This prevented him, with rare exceptions, from elaborating his ideas on any subject into a completely rounded whole. Though a prolific writer almost up to the close of his life, he was primarily a maker not of books but of articles and monographs. But articles after a few months become relatively inaccessible and worthwhile monographs soon fall out of print. The result has been that students of Patten have for some time been handicapped by their inability to secure many of his most significant writings. This makes the present assembling into a convenient volume of his more important articles on economic theory, including his monographs, *The Theory of Dynamic Economics* and *The Reconstruction of Economic Theory,* not only a fitting monument to his memory but also a most welcome and valuable addition to our economic literature.

The important facts of Patten's life have so recently been set forth at length by the editor of this volume, Dr. Tugwell, and by another devoted student of Patten's, Dr. Roswell C. McCrea,[1] that a brief restatement will suffice to introduce these essays.

Simon Nelson Patten was born on May 1, 1852, at Cossayuna, New York, and reared on his father's homestead farm at Sandwich, Illinois. His mother died when he was only four years old. Although the new mother who came in a few months to care for the bereaved family was kind to her stepchildren, this break helps to account for the fact that Simon early formed the habit of thinking for himself. As a boy and all through life he was reserved even with his intimates and developed his ideas more through solitary meditation than through the give and take of frank discussion.

Partly from recognition of the superior quality of his son's mind but also because of that son's demonstrated incapacity for farming, the elder Patten early decided that Simon should be trained for the law. With this end in view he was sent at the age of seventeen to Jennings Seminary at Aurora,

[1] "Notes on the Life and Work of Simon Nelson Patten," article by Rexford G. Tugwell in *The Journal of Political Economy* for April, 1923, Vol. xxxi, No. 2, pp. 153–208; "A Biographical Sketch," contributed by Roswell C. McCrea to *The Dr. Simon Nelson Patten Memorial,* published as an appendix to the May, 1923, number of *The Annals of the American Academy of Political and Social Science,* No. 196.

where he made the acquaintance, among others, of his life-long friend, Joseph French Johnson. Instead of confirming his desire to be a lawyer, if he ever really cherished that ambition, the five years he spent at the Seminary turned his thoughts to further study of philosophy and social science. After another year on the paternal farm, he went to Northwestern University for a few weeks in the fall of 1875 and from there to Halle, Germany, to join his friend "Joe" Johnson. It was here that he made the acquaintance of the other friend who most influenced his later life, Edmund J. James. Returning from Germany in 1878 with his Ph.D. degree but with little prospect of remunerative employment, he spent another year on the farm at Sandwich before deciding to enter a Chicago law school in deference to the ambition his father still cherished for him. It was at this point that the serious calamity befell him which for three years literally darkened his life, but which had the happy result of diverting him for ever from the pursuit of the law to the pursuit of economics as his main business in life. After six weeks study his eyes failed him. Pain and the bitterness of thwarted hopes were his hard portion until in May, 1882, he visited his friend Edmund James in Philadelphia and through him was introduced to an oculist who diagnosed his trouble correctly and by means of glasses restored his vision.

During his period of darkness the project of a book which should recast the English economics of Mill to suit American conditions formed in his mind. In the leisure time afforded by two years of school teaching he succeeded, after his sight was restored, in reducing his thoughts to writing. With the help of Joseph French Johnson and other friends he brought his rough drafts, "unbelievably awful in grammar, spelling and general construction," into the orderly form of a book. This was sent to Edmund James in Philadelphia and on his recommendation accepted for publication as *The Premises of Political Economy: Being a Re-examination of Certain Fundamental Principles of Economic Science* by the Lippincotts of that city in 1885. The publication of this book and the respectful, if not enthusiastic, reception accorded it, not only confirmed James' confidence in his friend's abilities but gave him a basis for persuading the authorities of the University of Pennsylvania to offer Patten the chair of Political Economy in the recently organized Wharton School of Finance and Economy in the spring of 1888. From the time he began his work at Pennsylvania in October, 1888, until, to quote from Dr. McCrea,[1] "his unwilling retirement in 1917, indeed until his death in 1922, he knew no other institutional allegiance. These were his productive years, marked by a growing literary output, by a widening circle of disciples, and by an increasing influence on ideas, on institutions, and on programs of social reconstruction."

It was my good fortune to be associated with Dr. Patten, first as student and later as very junior colleague, from 1893 to 1901, when he was at the height of his influence and usefulness. It so happened that during the last of these years he was at work on his *Theory of Prosperity,* which was pub-

[1] In the "Biographical Sketch" already referred to.

lished in 1902, and that in reviewing it for the *Annals*[1] I took occasion to show its relation to his earlier work, when all his writings were fresh in my mind and his printed pages were illumined by our many discussions while his earlier books and articles had been in course of preparation. These facts have caused me to draw freely from this review in trying now to trace the progress of Patten's thinking and show the relation of the writings on economic theory contained in this volume to his contributions in the related fields of history, psychology and sociology.

Next to the impressions early stamped upon his mind by the generous response of nature to man's efforts to gain a livelihood on the fertile and well cultivated acres of his father's Illinois farm, the economic and social conditions in Germany during his student years there most influenced Dr. Patten's later thinking on economic problems. Like others of his generation he got his first knowledge of formal economics from the pages of John Stuart Mill. Even before he went to Germany he had become convinced that some of the premises on which Mill based his arguments for a *laissez-faire,* free-trade policy were untrue of American conditions. In Germany he witnessed the beneficial results of the contrary policy. Professor Conrad of Halle, an authority on agricultural economics, taught him how the German beet sugar industry had been built up through protection judiciously applied and how German agriculture as a whole had been benefited by the attention the government had given to the development of German potash mines and fertilizer factories. He was readily convinced that, while free trade might be advantageous for the United Kingdom, countries like the United States and Germany, which were predominantly agricultural, required protection to enable them to develop manufacturing industries to a point where they could hold their own. But even more than the teachings of the class room, the contrasting habits and customs of the Germans themselves impressed him. He perceived that though much poorer in their command of commodities than the farmers of Illinois, the professional families he met in Halle were in many ways better off. Through varied and coöperative habits of consumption, the Germans in great measure overcame their disadvantages in production. Halle was well provided with public parks and playgrounds. There was a municipal theatre and opera house. Inexpensive restaurants were everywhere, making possible easily arranged excursions to the country and pleasant evenings of social intercourse for the relief of overworked housewives. Observation of the way in which the Germans utilized these advantages made him realize that social welfare depends quite as much on the way in which wealth is used as on its amount, a conviction which influenced all of his economic thinking.

In his first book, *The Premises of Political Economy,* Dr. Patten sought to recast the economics of Mill in the light of the ideas he acquired in Germany and of the economic conditions of rural Illinois with which he was so

[1] Professor Patten's *"Theory of Prosperity."* Review in *The Annals of the American Academy of Political and Social Science* for March, 1902, No. 333, pp. 75–91.

thoroughly familiar. In his second monograph, *The Consumption of Wealth,* the influence of his German observations is even more marked. As the first attempt of a trained economist to formulate laws of consumption, this book even more than its predecessor established Patten's reputation as an original and constructive thinker.

His next book, *The Economic Basis of Protection,* was an attempt to give a more practical application to the views he had already sketched in his *Premises.* He had come to the conclusion that the chief weakness of English economics was its failure to make allowance for quantitative changes in men and goods. Not increase in goods but increase in productive power should, he thought, be the aim of governmental policy. That his development of this idea strongly impressed his contemporaries was shown by the fact that *The Economic Basis of Protection* was within a few years translated into both French and Italian.

The same dissatisfaction with the rigid and narrow premises of English economics that inspired his first three books led to his attempt to formulate definite laws of economic progress. *The Theory of Dynamic Economics,* reprinted in this volume, insists that progress and change are as "normal" as, as they are obviously more important than, the regular recurrence of the same sequence of economic events, which other economists had tried to explain. Here again he was breaking new ground and helping to free his own mind and the minds of his readers from the influence of traditional views that were losing their significance.

The next period of his thought began, as was usual in his mental progress, with concrete studies. The essays on "Malthus and Ricardo" and on "The Interpretation of Ricardo," which follow, grew out of his belief that local conditions not only determine what economic policies are desirable but also shape men's ideas and even their modes of reasoning. To prove this theory he attempted to show that Ricardo was a believer in free trade because he argued from the viewpoint of a city capitalist, but that Malthus believed in protection because his standpoint was that of the farmers and landowners of his day.

His next important books, *The Theory of Social Forces* and *The Development of English Thought* are products of the same period. In the first he attempts to formulate new psychological and moral principles to take the place of the old associational psychology and utilitarian ethics, which he considered no longer adequate bases for further progress. His own modest estimate of the value of his attempt is set forth in his Introduction:

> I feel that I must make an apology for injecting so much psychologic discussion into this essay. To many readers this will seem foreign to the subject and may arouse prejudices which will interfere with a correct appreciation of the other facts. It should, however, be kept in mind that every social philosophy has, as its basis, some theory of psychology. The doctrines of Locke and Hume have proved a most admirable basis for the old social philosophy. They ignore, however, the elements upon which the social forces rest. A new social philosophy cannot pass beyond the inductive stage until these factors are recognized and a picture of mental activity

constructed which emphasizes the elements neglected by the old philosophy. Even if the type of psychology which I present is faulty, it can at least serve as a provisional philosophy until psychologic research is far enough advanced to furnish a better basis.

At this period, as always, he did not overrate his ability to make contributions of permanent value in other fields of thought, but he did trust implicitly his instinct for detecting the places where the foundations of economic analysis were no longer dependable and where reconstruction was urgently called for.

The Development of English Thought is an application to a larger canvas of the same plan of analysis that led to his essays on Malthus and Ricardo. Describing this undertaking he says.

The theory presented is scarcely open to question, though some of its corollaries may not be evident. Survival is determined and progress created by a struggle for the requisites of which the supply is insufficient. These requisites are the goods for which men strive or the means by which they meet evils. A group of such definite objects, upon which the life and happiness of each race depend, always exists. The environment formed by this group of economic objects surrounding and supporting a given race, changes with the several objects on which the interests of the race are centered. With the new objects come new activities and new requisites for survival. To meet these new conditions, the motives, instincts and habits of the race are modified; new modes of thought are formed; and thus, by the modification of institutions, ideals and customs, all of the characteristics of the civilization are reconstructed. These changes take place in a regular order; the series repeats itself in each environment. In its amplification and illustration lies the economic interpretation of history.

He had two reasons for selecting England for this experiment in economic interpretation. In the first place he was impressed by the fact that the insular situation of that country had permitted it to develop with less interference from the outside than any other nation. Secondly, it had been English experience which had supplied the background for the three systems of economic thought that had most interested him, those of Ricardo, Marx and George. He hoped to show through his study that the premises on which each of these systems was based were only of transient validity.

In commenting on this book in later years Dr. Patten expressed the opinion that his method of interpretation answered fairly well except in the case of Adam Smith. It was because he found in Smith a writer who was largely emancipated from the influence of local conditions that he was led to formulate the most important distinction in his next book, *The Theory of Prosperity,* that between "existing conditions" and "heredity" as determinants of income.

The same desire to find a broader and truer basis for economic analysis than had yet been provided which caused Dr. Patten to venture into the fields of sociology, psychology and history in the writings that have been referred to, caused him to propose *The New Basis of Civilization* to social workers in his Kennedy lectures for 1905 and to seek for *The Social Basis of Religion* in his last important book, published in 1911. Unsympathetic

critics accused Dr. Patten when he wrote these books of turning his back upon economics and invading fields of science for which he had no special competence. A mere cataloging of the titles of his books and articles during the twenty years from 1892, when he published his *Theory of Dynamic Economics,* until 1912, when he clearly returned to his own field with the publication of his *Reconstruction of Economic Theory,* lends a certain plausibility to this charge. But no careful reader of Patten's writings during these twenty years can fail to see the thread of economic interest that bound them together, at least in the writer's own mind, into a united, if not always consistent, whole. Thus his excursions into the field of sociology were no mere freebooting expeditions but reasoned efforts to find satisfactory explanations for phenomena which concerned economists quite as much as sociologists. Believing, as he himself expressed it, that "the difference between economics and sociology is that the economist regards as fundamental the primary phenomena of his own science, while the sociologist regards economic phenomena as a consequence of more fundamental laws," he could not, as an economist, refrain from throwing himself into the discussion of the ultimate causes of social phenomena. Similarly, his speculations in regard to the mechanism underlying thought processes were intended less as contributions to psychology, than as distress signals to induce psychologists to give a direction to their investigations which might be helpful to economists. Finally his *Development of English Thought* was not history, but an attempt to show that economics supplies the key to the understanding of the maze of events which the narrative historian delights to recount.

In all of his thinking and writing Dr. Patten was an economist. If his speculations covered a wide field, it was only because he believed that economic factors, broadly conceived, have shaped human history in the past and will direct human progress in the future.

The articles and monographs which follow show Dr. Patten's method of approaching economic questions and his most significant contributions better than any amount of preliminary description. It may help the reader, however, to remember that all his life Dr. Patten considered himself a disciple of John Stuart Mill,[1] and that much of his thinking grew out of the advanced course on economics based on Mill's writings which he for many years gave at Pennsylvania. Through Mill he was convinced that the inductive method was the only safe one for handling social phenomena. This conviction, however, was never strong enough to divert his own mind from its normal deductive method of operation. What he acutely says of Ricardo's method of reasoning, that is, that it was concrete deductive, generalizing from vividly apprehended concrete situations, was equally true of his own. While he always urged his students to look up the statistical evidence, he never bothered to make any very careful statistical researches himself.

[1] "I have regarded myself as his disciple; and while other heroes of my youthful ardor sank beneath the horizon, he remained the one personal influence shaping my thought." (*Reconstruction of Economic Theory.*)

His power came from his almost intuitive selection of the significant from the irrelevant, and his freedom from hampering preconceptions in approaching new problems and novel situations. As Professor Tugwell has pointed out [1] his most characteristic contributions to economics were the evidence he presented in support of the economic interpretation of history, his distinction between the pain-deficit and pleasure-surplus stages in human progress, his insistence that there is no natural limitation on progress but that productive power is subject to the law of increasing rather than decreasing returns, his recognition that improvements in consumption may contribute to further progress quite as much as improvements in production, his emphasis on dynamic economics, his confidence in programs calling for the aggressive interference of government with the free play of economic forces varying all the way from protection to prohibition and the economic emancipation of women, and his distrust of competition as a regulator of economic relations and confidence in coöperation and other forms of socialization.

Those who did not know Patten, the man and teacher, cannot but gain new understanding of economic phenomena and new inspiration by reading his writings. But to those who did know him and even more to those who were his students, his writings must always seem but inadequate reflections of his penetrating understanding of the problems that engaged his mind and his stimulating method of presenting them to others. Since his death two important memorial meetings have been held in his honor, one under the auspices of the American Academy of Political and Social Science, and the other under those of the American Economic Association,[2] with both of which organizations he was prominently connected from their inception. Among the addresses delivered on these occasions by the leading economists and sociologists of the country, no tributes were more eloquent than those of Dr. Patten's students. To all of us, who sat under him in the class room, he was the prince of teachers, and I cannot better emphasize this aspect of his influence in closing than by quoting from the address on "Simon N. Patten, Teacher," by Dr. C. H. Crennan of Chicago at the Economic Association meeting:

> And so it seems to me that the truest measure of the man is found in his work as a teacher. In other fields he doubtless had defects to which his followers are justified in being blind. But we are not blind to that greatest characteristic of a great teacher—his rare faculty for uncovering, for stating, for illuminating problems of social import. He knew, as we know, that one who cannot see problems, cannot think. Surveying his methods, my fondest hope for education in this land is that we may be blessed with more Pattens—more indefatigable, uncompromising delvers into things as they are that we may learn what is, and so that ultimately we may compass what ought to be.

Henry Rogers Seager.

Columbia University.

[1] In article in the *Journal of Political Economy* for April, 1923, already referred to.

[2] The addresses presented at this meeting are appended to the *Papers and Proceedings of the Thirty-fifth Annual Meeting of the American Economic Association.* Supplement to the March, 1923, number of the *American Economic Review.* Vol. xiii, no. 1, pp. 259–293.

ESSAYS IN ECONOMIC THEORY

THE EFFECT OF THE CONSUMPTION OF WEALTH ON THE ECONOMIC WELFARE OF SOCIETY[1]

IT is the purpose of this essay to examine the relation between the wants of man and the obstacles to satisfying them, in order to show that correct ideas about the consumption of wealth are a necessary factor in the solution of any economic problem. By themselves the physical laws do not furnish safe premises from which to draw conclusions about the economic welfare of different nations. Even the laws of rent, population, and diminishing returns, cannot be established without an investigation of the consumption of wealth. It is, however, a prevalent opinion that there are no laws of the consumption of wealth other than the laws of human enjoyment. Although J. S. Mill, in expressing this opinion, does not tell us what these laws of human enjoyment are, yet, being a disciple of Bentham, it is evident that he refers to the laws of utility which Bentham developed. According to this view, each pleasure or pain is considered by itself, and the degree of utility is determined by the intensity of feeling. It is, then, inferred that we satisfy our most intense desires first, and that we can determine the intensity of each desire from the order in which we demand commodities for consumption. This reasoning looks plausible, yet it contains a serious error, since from the whole intensity of a pleasure we must deduct the amount of pain indirectly connected with it. To illustrate my meaning, let us picture the action of an individual at a free dinner, where all the dainties of the season were at his disposal. What articles of food would he choose first? Evidently those which gave him the greatest pleasure. When his desire for these articles was satisfied, or when the degree of their utility to him was greatly reduced, he would consume other articles for which his appetite was not so strong. The final degree of utility of any article would rapidly decline, and hence a great many different articles would be consumed.

In contrast with the action of this individual at a free dinner, let us picture his actions at an ordinary dinner for which he must pay. He will now consume a very different set of articles from those he consumed at a free dinner. The knowledge that a given article of which he is very fond costs twice or three times as much as some other article for which his desire is much less, will usually cause him to eat the latter article, even though his

[1] Reprinted from a small volume of papers called "Science Economic Discussion" published in 1886 containing papers by H. C. Adams, R. T. Ely, A. T. Hadley, E. J. James, Simon Newcomb, E. R. A. Seligman, R. M. Smith, F. W. Taussig, and this by S. N. Patten. The preface reads, in part: "The series of articles published in this brochure are the result of a conference, held in the spring of this year (1886), with some of the leaders of the 'new school' of economists. . . ."

appetite for it is much weaker. Many of the costly articles of which he partook largely at the free dinner will not come into his ordinary dinner at all, while other articles will seldom appear on his table, and then be eaten very sparingly.

From these illustrations it can be seen that there are two distinct orders in which we choose commodities for consumption. One of these we may term the natural order, as it is the order in which men choose commodities for consumption when influenced solely by those ultimate physiological conditions which make the consumption of some commodities more pleasurable than others. The second we may term the economic order, because this is the order in which men choose commodities for consumption when their natural desire for an article is modified by the amount of labor required to produce it. If the labor required to produce an article were always in proportion to the utility derived from its consumption, these two orders would be identical. It is, however, seldom true that the consumption of the product of a week's work in the production of wheat will give the same amount of pleasure as does the product of a week's work in the production of corn, rice, tobacco, cloth, or cutlery. Writers on utility make a serious mistake in supposing that men, in choosing commodities for consumption, always follow the natural order. Men, we are told, first supply the necessities of life, which are few and simple; then they desire to vary their food; soon they desire variety in dress and the conveniences of life; and finally there arises a desire for the luxuries of life. This classification of the intensity of our desires doubtless contains a measure of the truth, but it is so indefinite that it cannot be developed in a satisfactory manner. Our need of food is certainly the most urgent of all desires, and will be first satisfied. If there were but one kind of food, it would be a very simple matter to determine the order in which we would satisfy our desires. There is, however, an almost infinite variety to our food-supply. Every tract of land has its peculiarities of soil and climate, which make it especially adapted to particular kinds of food. The consumption of these different kinds of food does not afford us the same amount of pleasure in proportion to the labor required for their production. Although the consumption of wheat may give a more intense pleasure to a man than that of rice, he will consume rice if work in a rice-field is so much more productive than work in a wheat-field that the pleasure derived from the consumption of rice, in proportion to its cost, is greater than the pleasure derived from the consumption of wheat in proportion to its cost. Suppose that eight units of pleasure are derived from a dinner composed of wheat-bread, and that six units of pain are required for its production; while a dinner of rice gave four units of pleasure, and cost but two units of pain. In this case the dinner of rice would be chosen, since the ratio of the pleasure to the pain would be greater than if wheat were consumed. A man under economic conditions will first choose that article which has the highest ratio of pleasure to pain, and then other articles will be chosen in that order which allows the highest ratios to stand first. For pleasure we can substitute utility, and for pain the cost

in labor, and then we can say that men, in choosing articles, are influenced by the ratio of their cost to their utility.

It must, however, be kept in mind that the relative cost of different articles, as indicated by their market-price, does not by itself furnish sufficient grounds for correctly estimating the relation of cost to utility. The utility of the various articles desired often changes from causes which do not affect their value. To those who think only of their immediate wants, cheap and shoddy articles have a much greater utility than they have to those having high regard for their future welfare. The choice between substantial articles of apparel or of household furniture, and their cheap imitations, which can only supply present needs, is largely determined by the estimate which the consumer has of his future needs; and as his regard for the future increases, the utility of substantial articles will also increase, even though there is no change in their market value. The utility of any article of food also largely depends upon the ability of housekeepers to cook it properly. The great consumption of meat and wheat-bread among Americans is largely due to the ignorance of their cooks, who do not usually possess sufficient skill to make ordinary vegetables palatable. The influence of good cooking is readily seen in the change which naturally takes place in the diet of an American when he goes to France or Germany. Those who at home rarely eat any vegetables other than potatoes will in France or Germany freely consume all kinds of vegetables, for the simple reason that the cooking is so superior that a taste is soon acquired for many dishes against which the poor cooking of his own country had given him a prejudice.

We have now arrived at one ultimate law in the theory of the consumption of wealth, but there is another of equal importance. It is usually assumed by economists that in each nation there is some one kind of food so much cheaper than any other as to be the natural food of its inhabitants. Ireland, Egypt, and India are, doubtless, striking examples of nations where a particular kind of product is so much cheaper than any other as to cause their inhabitants to use a single article of food for their main diet; yet, taking the world as a whole, there are many nations where several different materials of diet have about the same ratio of utility to cost. That is especially true in nations where the land is highly cultivated, since, with a proper rotation of crops, the same quantity of food can be raised more cheaply than if only one crop were produced. Even if the soil of many nations is more productive of some one kind of food, as soon as commerce between these nations arises, the exchange of produce causes many articles of food to have about the same ratio of utility to cost.

We must therefore examine the changes which occur when a nation using but one kind of food begins to use a more varied diet, through any of the above-mentioned causes. Let us, as an example, take a man who is accustomed to potatoes as a sole diet. When he begins his dinner, the eating of the first potato will give him great pleasure, and from each following potato he will derive less pleasure, until at length he can obtain no additional pleasure by continuing to eat. This point is called the point of satiety, and we

must now examine the conditions which determine where this point of satiety will be. Will the appetite be satisfied when three potatoes are consumed, or will four, or even six or eight, potatoes be desired? It is evident there must be a connection between the point of satiety and the needs of the human system. If a man is accustomed to hard work, the point of satiety will not be reached so soon as if little or no work were performed. Men who eat irregularly, or tribes whose sources of food are uncertain, must have stronger appetites than are necessary for those who eat regularly and live in regions having regular supplies of food. The point of satiety is further conditioned by the nutritive qualities of the food consumed. Some kinds of food have a greater proportion of nutritive matter than others, and of these a smaller quantity will supply all the needs of the body than would be required of the less nutritive kinds of food. If a person accustomed to a meat diet should be compelled to subsist on potatoes, his appetite would give out long before he had eaten enough to supply the wants of his system. On the other hand, if a person accustomed to a potato diet should suddenly change to a meat diet, his appetite would be so great that he would eat much more than his system demanded. Suppose a man whose sole diet has been potatoes to come under the conditions where wheat-bread will form a substantial part of his diet. Evidently his appetite will be too strong for his new conditions. If he eats half his usual allowance of potatoes, and then changes to bread, he will eat more bread than would be an equivalent for the potatoes he would have eaten if potatoes were his sole diet. A change of food revives the appetite, and a person will eat more than his system requires. On the other hand, his system will require less food if the diet becomes more varied. The different articles of food supplement one another, and all the needs of the system are supplied with much less waste than if a less varied diet were consumed. If, then, the appetite of a person increases as his diet becomes more varied, while with this more varied diet his system requires less food, a change to a more varied diet will destroy the previous harmony between the needs of the system and the appetite. This harmony can be restored only when the appetite has been so reduced that the point of satiety will be reached as soon as the needs of the system have been satisfied. With every increase in the variety of our food, the intensity of pleasure derived from the food must be reduced; so that, when the system becomes accustomed to the new diet, the point of satiety will be reached sooner than was formerly the case.

The truth of this law is much obscured in actual life by the conditions under which our civilization has arisen. In most countries, during the earlier stages of their development, those articles of food whose consumption gives the greatest pleasure could not be used to any extent on account of their great cost. Articles like potatoes and rice had so low a cost in proportion to their utility, that they were consumed, although the pleasure derived from them was much less than could be obtained from more palatable food. At the present time a more varied diet means the consumption of a greater proportion of these more desirable articles, such as wheat-bread,

meat, and liquors. In this way a more varied diet excites the appetite in a double way, and greatly increases the intensity of feeling derived from the consumption of food. Appetites will in time adjust themselves to the new conditions, and the intensity of feeling derived from food will be so reduced that the point of satiety will be reached as soon as the needs of the system are satisfied.

There is no necessary connection between the intensity of feeling which we derive from the consumption of food, and its ability to supply the needs of our system. Water and air are necessary to our systems, and yet we derive but little pleasure from their consumption. It is the struggle for food that is the ultimate reason why our desire for it is so intense. If our world had been so constructed that there was a surplus of food, while water and air were as rare as our food-supply, breathing and drinking would probably be great sources of enjoyment, and we should labor to increase our supply of air and water just as we now work for food. An abundant supply of any article of food causes us to lose our relish for it. This fact is plainly visible in the effect which the increased consumpton of liquor has on the tastes of those who use it. It is universally admitted that the demand for strong drinks is rapidly increasing. Even in France and Germany, where the use of light liquors has been so prevalent, the public taste is much less discriminating than formerly. The change from light to strong drinks shows that the public is losing that delicate sense of discrimination which is the cause of intense pleasure, and that it is seeking, through an increase of quantity and stimulation, to obtain a substitute for what it has lost.

In this connection, the reduction in the cost of sugar deserves especial attention, because the change in its value has been so recent that the great economic effects of the change are just beginning to reveal themselves. In the past, sugar has been so costly that it has always been ranked among the luxuries, and from force of habit it is still so regarded by most persons. Its price is now so reduced that the cost of a pound of sugar is but little more than that of a pound of flour, and there are good reasons to suppose that its price will soon be reduced below that of flour. The effects of this change must in time revolutionize our present diet. Most of our fruits and many of our vegetables become palatable enough only through a free use of sugar, and it is of as much importance to the utilization of these fruits and vegetables as salt and ice are to the preservation of meat. When present prejudices and habits which limit the use of sugar give way, the increase in the use of our fruits and vegetables must be as great as that which the use of salt and ice has caused in the case of meat.

The rapid increase in the use of sugar is now worthy of especial attention, because of its connection with the temperance movement. In past times the diet of the ordinary laborer was made palatable only through a free use of liquor. It was the pleasure-giving portion of the meal, the other coarse and usually ill-prepared articles being washed down by its use. As no other highly pleasurable diet was within the laborer's means, the use of liquor could not be greatly reduced without making his diet unendurable.

Now, however, all this is changed. The low price of sugar places a satisfying diet within the means of every one, and it is now much easier than formerly to persuade people to forego the use of liquor, when an equally pleasurable diet can be obtained from other sources. The temperance people as a class live on a sugar diet, sugar being that part of their diet from which they derive the greater part of their pleasure. As consumers, they form a distinct class, and have an order of consumption radically different from their liquor-loving neighbors. With every reduction in the price of sugar, they gain an increasing advantage in the struggle for life over the drinking classes, and the day does not seem far distant when the cheapness of their diet will give them an industrial supremacy in the greater part of the field of employment.

The satisfaction of our animal wants through a varied diet reduces the intensity of our desire for food, until the intensity of these desires becomes less than the intensity of our desires of a higher character. A universal demand for objects of refined enjoyment can arise only when a varied diet has been enjoyed long enough to reduce the intensity of our enjoyment for food. The demand for commodities can be radically changed from what it has been in the past only under conditions which favor a varied diet, and these conditions are those which cause a large number of articles of food to have about the same ratio of cost to utility. There is little or no hope of permanent progress so long as potatoes or rice have a much lower ratio of cost to utility than other articles of food. The pressure of hard times or of population will cause the mass of the people to use these articles only; and the intensity of their desire for food will remain so great that there will be little or no demand for other articles, except for the bare necessities required for shelter and clothing. On the other hand, if many articles have about the same ratio of cost to utility, the pressure of hard times or of population cannot reduce the variety of food. If potatoes and wheat had about the same ratio of cost to utility, there could be no advantage gained by using potatoes only. Under these conditions, the pressure of hard times might reduce the quantity of food consumed, but it could not exclude the use of either potatoes or wheat, as could be done if one of these articles had a much lower ratio of cost to utility than the other.

The same law holds true of other articles than food. If homespun cloth is much cheaper than factory-made cloth, it will be used, even though its colors are much less attractive, and as a result the tastes of the people will remain undeveloped. As soon, however, as improved machinery and commerce cause the factory-made cloth to displace the unattractive homespun cloth, the conditions are secured under which the taste can develop, since, from the many varieties of color and figure, each person can choose the article which is most becoming, without any difference in cost. Just so, when the division of labor has so developed that ready-made or custom-made articles of apparel become as cheap as home-made articles, the purchaser has a much greater variety to choose from, and can secure a much better-fitting article than was possible while home-made articles were in use.

In these and many other ways the intensity of our desire for articles of taste and refinement is gradually increased, and the ratio of their cost to their utility is reduced until this ratio is no greater than that of the articles of food. Then they become a part of the standard of life which all enjoy, and the pressure of hard times can no more displace them than it can cause a people to use only one kind of food when several kinds have the same ratio of cost to utility.

We now have the principal causes which change the ratio of the utility of desired commodities to their cost. In primitive times, when each tribe was isolated from its neighbors, some one article of food usually had so low a ratio of cost to utility that it became the sole diet of the tribe, while their rude appliances could not afford any variety of dress or ornament. In such a social state the economic order of consumption diverges the farthest from the natural order. Yet it is often asserted that savages and backwoodsmen are natural, while the more civilized people of our great centres of population lead an artificial life. Men, however, are in a natural condition only when the cost of each article has such a ratio to its utility that the consumption of these articles is in the same order that they would be if every thing were free. Judged by this standard, the actions of the backwoodsmen and savages are very artificial, and should never be used as evidence of what is natural to men. It is not any physiological need, or any peculiarity of constitution, that induces men to resort to those sources of enjoyment prevalent in rude societies. Their economic surroundings do not allow any other choice, and they must remain in this state until some improvement in their economic condition allows a wider choice in consumption.

The economists of the past century accepted the doctrine that the primitive man was in the natural state, and that he became artificial through civilization. Of the many errors springing from this false view, none were greater than the consequent exclusion of consumption as a department of political economy. If the desires of the primitive man are natural, no change in his economic condition will make any change in the order in which he will consume commodities. With every increase in his productive power, he can supply his less pressing wants; but the order in which he supplies his wants will not change without a change in his physical constitution. If this were true, the laws of consumption would be merely laws of human enjoyment, and would be outside of the field of economics. On the other hand, if the isolated economic condition of the backwoodsman and savage causes them to deviate widely from the natural order of consumption, we cannot accept their actions as models from which to determine the laws of human nature. It is from such models that the law is derived that men have a natural aversion to labor and a desire for the present enjoyment of costly indulgences. Men have a natural aversion only to that labor in which there is a surplus of pain, and costly indulgences are preferred to real utilities only under those economic conditions which make the latter more costly than the former. The primitive man had but few real wants which he could supply without a surplus of pain, and thus his aversion to labor grew

out of his economic surroundings. On the other hand, with the higher types of the civilized man, the number of wants which can be supplied at a low ratio of cost to utility are so great that all his exertions can supply but a mere fraction of them. He therefore has as strong a tendency to overwork as his primitive ancestor had to remain inactive. The real laws of human nature do not change with our economic surroundings. If a German comes to America, his nature will not be altered, yet his aversion for labor and his demand for commodities will be modified by his surroundings. We inherit about the same nature which our fathers had; yet, as our economic conditions have changed, it would be impossible from their conduct to infer what we desire, or how much we dislike to work.

By the changes in consumption which modern progress has made possible, the welfare of society has been improved in two important respects. Through a great reduction in cost, many more articles than formerly have a low ratio of cost to utility, and thus the inducement to labor has been greatly increased. In the second place, the greater variety of our wants allows them to be supplied with a smaller proportional labor. A people with few wants must perforce use all the land there is to supply them, even though most of it is better fitted for other uses; but with a constantly growing variety of wants, the complete inherent resources of the soil and the climate can be better utilized.

Were the actions of men controlled only by the laws of human nature and those of the external world, our present economic condition would be greatly improved. We have inherited a world much better fitted for supplying our wants than that possessed by our ancestors; but along with this better economic world we have also inherited laws, habits, and prejudices suited only to the artificial surroundings of our ancestors. Only when our prejudices have been removed, and our laws and habits modified so as to harmonize with our present environment, can we hope to utilize all our resources, and to have all that variety in our consumption which a better conformity to natural laws will permit. We do not need a new world nor a new man; but we do need a new society and a state whose power will be superior to that of any combination of selfish individuals, and whose duties will be commensurate with human wants.

PRESIDENT WALKER'S THEORY OF DISTRIBUTION[1]

IT may seem out of place to bring up the theory of business profits and the wage-fund so soon after they have been discussed in recent numbers of this *Quarterly,* yet this discussion was complete only from one point of view. I do not know that President Walker had a definite idea in mind when he asked for criticism from American economists. It might, however, be justly said that he was criticized mainly from the traditional standard of the older economists. Such a discussion was of great interest, as it showed how strong a hold the old formulas still have upon many able minds. It should not, however, render less interesting an examination of his doctrines by those who are less orthodox in their mode of thought, having been largely influenced by German thinkers as well as by the writings of American economists, of whom President Walker is the best example.

In advancing a few criticisms, I have no desire to uphold the old theory of wages. I probably see more truth in this point of view than Mr. Walker does, since the theory seems to me crude and defective rather than false. There are also many places in Mill, for example, where the meaning is uncertain, and not a few passages and words that can be understood in more than one way. The writings of Mr. Walker are to me much clearer, yet I cannot say that he is entirely free from the defects that make many passages in Mill so perplexing to a reader who has only the printed book from which to get his ideas. My own short experience as a writer has taught me how easy it is to leave out some essential feature in the thought I desire to convey, and thus leave the reader in doubt or, even worse, lead him astray. I would therefore criticize the views of Mr. Walker, not for the purpose of rebutting them, but with the hope that he may put them in so clear a light that there can be no doubt as to his meaning. My interest in his views is not merely that of an individual: as a teacher, I have to present views of various writers, and it is not satisfactory to present a view of which the teacher has some doubt as to the author's meaning. If I could ask a few questions which would clear up my doubts as to Mr. Walker's meaning, I would much prefer to do so. I fear, however, that mere questions would not reveal the thought of the questioner in a way that would allow of an intelligent answer. It therefore seems advisable to go carefully over the essential features of the theories in question, so that the import of the questions I would ask may be seen. To do this, it will be necessary first to trace in outline the development of the existing theories.

In Mill's theory of distribution, he recognizes but two factors,—wages

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and profits. It is true that he knew of rent, and in other places emphasized its importance; yet in distribution he supposes that no rent is paid, and promises to show that no error is produced by overlooking it. The two shares thus seem to absorb the whole return for labor, and what is not wages is profits. Of these two shares, the one, wages, is a fixed fund, and the other, profits, is the residual claimant. To say that profits is the leavings of wages is to assert that the law of wages makes it a definite fund, while profits are not fixed by any definite laws independent of wages.

The great progress which Mr. Walker makes consists in resolving this indefinite residual share into two definite factors,—profits and interest,—which are governed by law. They now become fixed funds, the size of which can be determined if we possess the requisite knowledge of industry and human nature. Profits are shown to be governed by a law similar to that of rent. As rent depends upon differences in land, so profits depend upon differences in the abilities of employers. Two factors, rent and profits, depend upon differences, and do not enter the cost of production; while the other two, interest and wages, tend to an equality, and determine the cost of production.

We now have clearly presented, for the first time, the basis upon which all true theories of distribution must rest. The factors in the cost of production are no longer regarded as the sole shares in distribution. Rent is not, as by Mill, slipped in at the back door, but placed in a definite relation to interest and wages, as a type of those factors which, depending upon differences, do not enter the cost of production.

Enriched by the positive part of Mr. Walker's contribution to the theory of distribution, the produce of industry would be divided into four definite funds. Each share could be determined in a positive manner from certain industrial relations which fix its amount. It can be neither greater nor less than this amount, unless there is some change in productive processes or in the industrial qualities of the producers. From a study of industrial relations, the share of each factor could be determined without knowing the amount of the other shares.

Mr. Walker, however, is not content to leave the theory of distribution in this shape. He holds that all the shares are not funds, but that one of them must be a residual claimant which cannot be determined from a direct examination of industrial relations. First, the definite funds are, one by one, cut off from the whole produce of industry, and then the remaining produce goes to the residual claimant. He seeks to show that wages are this residual share, instead of profits, as is the view of most of the previous economists. They enclosed wages within fixed bounds and gave the leavings to profits; while he gives the leavings to wages, having previously cut off for each of the other claimants a share determined by certain rules obtained from industrial relations. Thus, in making one of the factors in a distribution a residual claimant, he follows the precedent of earlier writers, differing from them only as to which of the factors waits until the demands of the other factors are satisfied, and then take the leavings.

I would, however, question this residual claimant theory as being the best mode of solving the problems of distribution. It is a tenable position that neither profits nor wages is so undetermined that its share is the mere leavings of what its rivals cannot secure for themselves. Doubtless, the believers in the old wage-fund theory had too simple a manner of determining wages; yet, in spite of all this, it may be that there is some law of wages which would not permit its becoming an especial claimant for any remainder that was left after the definite shares were cut off. The laws controlling profits, rent and interest are now too well known to make it necessary to examine closely into their claims for the surplus produce which the industrial laws determining their shares would not give to them. The only question can be about the claims of the laborers to this surplus. In discussing this problem, it is difficult to separate the general problem of a wage-fund from the particular problem of how this fund is determined. It is hard to enter an arena where the line of battle is definitely drawn, and draw a new line which will run through both camps. Yet there is no other course for one to pursue who thinks that wages are a fund, and still doubts the truth of the traditional rules by which it is determined. Something more than the number of the laborers must be known of them to fix their wages; yet, if that something be definite, there is a law of wages no less than of the other factors.

In discussing the definiteness of the share of each factor, there should also be a sharp distinction drawn between a static and a dynamic state of society. The advocates of the wage-fund theory seem to have largely, though not clearly, a static state in mind, while their opponents emphasize largely, if not wholly, a dynamic state. I can find in Mr. Walker's works no discussion of a static state. Whether he overlooks or underestimates the importance of this phase of the discussion is uncertain; yet, evidently, no discussion is complete until it is considered. He begins his discussion with the supposition that the productive power of the community be increased by ten per cent. This is a legitimate method to determine certain problems of distribution, yet they are only the problems of a dynamic state. Other important problems—those of a static state—are thus left undetermined. Even allowing that all the increase in the produce of industry due to improvements passes into the hands of the laborers, still, if no improvements are made, it may be that wages are a fund with definite limits.

I do not see how there can be any residual share in a static state. Society will not cease to be dynamic until some limit is reached, fixing each of the shares. It does not follow, because their number is not all the knowledge of the laborers that we need to determine their share in distribution, that there are not other qualities fixed and tangible from which the desired information can be obtained. At least, it is possible to say that certain qualities do not affect the wage-fund. Take, for example, the power of organization, or of strikes, to raise wages. Mr. Walker tells us that, if a workman does not pursue his interest, he loses his interest, and is very earnest in the belief that wages can be increased by a watchful care on the

part of the workmen that no unjust advantage is taken of them. Yet I do not see how the power of organization alone can assist them in a static state. And on this point I cannot reconcile the well-known views of Mr. Walker with his theory of distribution. If the workmen organize to increase their wages, from what are the increased wages to come,—from rent, interest, or profits? They cannot come from rent, since there is no change in the demand for food which would allow some of the poorest land to go out of cultivation. Neither will the demand for capital be less, so as to admit of a fall in the rate of interest. Nor do I see how the number of the employers would be reduced, through which alone a fall in profits becomes possible.

On the other hand, if the workmen fail to organize, how can their wages be lowered? If wages fall, some of the other factors in distribution must get more. And who can this fortunate person be who will benefit by the fall in wages? Can the landlord get more rent, with no increase in the demand for food? And in what way can the capitalists or employers gain by the loss of the workmen, when the quantity of capital and the number of employers would not be increased? At least, it would seem that these persons could not gain by a fall in wages, any more than they could gain by an increase in the productive power of the laborers. Mr. Walker shows very clearly that none of these factors could retain a part of the increased produce due to the efficiency of the laborers. Does not the same reasoning show that they could not gain from a reduction of wages? In short, I fail to see any connection between the wages of the workmen and their power or willingness to organize for self-protection. The share of each of the other factors is fixed by positive reasons depending upon industrial conditions, which an organization of the laborers, merely for higher wages, cannot affect. So long as the product of industry and the shares of the other factors are fixed, it is not possible for wages to vary. Any cause influencing wages must at the same time act upon at least one of the other factors in distribution. This law must hold in a static state of society, even if it has to be modified to meet the more complicated conditions of a dynamic state. If the workmen are dissatisfied, they can obtain an increase in wages only by improving production. They cannot influence the distribution of present production except through some change in its amount.

If we accept this reasoning, wages, in a static state, are a limited fund and on the same footing with the other factors. Each share can be discovered by examining into the positive conditions by which it is limited. It can thus be cut off in any order, since its amount is independent of the size of the other shares. Wages are not high merely because interest is low, but for positive reasons connected with the habits, mode of living, and efficiency of the laboring classes. And interest is high, not because wages are low, but because people dislike the act of saving. Profits are high, if the differences between employers are great, for the same reason that rent is high when poor land is cultivated. Wages cannot be a residual claimant, since the standard of life of the laboring people fixes their return as definitely as the willingness to save and wait for increased returns controls the

rate of interest. There can be no residual claimant in a static state, because all the opportunities to labor from which the workmen can get a return equal to his standard of life will be utilized. No more capital can be used or land cultivated until the standard of efficiency of industry has been in some way enlarged. The standard of life among the workmen using the least productive instruments is always high enough to leave no residual to be claimed by any one, and the surplus of the more efficient instrument goes to rent or profits.

The efficiency of the laborers is the effect, not the cause, of the standard of life. Men become efficient because they want more than their present labor can supply. Some modification in the environment reduces the old pleasures or adds some new ones; and, from this change, a feeling of discontent arises, leading to an increase of efficiency. Put a man in a mental state where he needs a greater variety in consumption to make life endurable, and the desire to be more efficient becomes irresistible, and forces enough changes in his habits and diet to enable him to supply his new wants. There is therefore no reason to look for a residual, if production has been increased through a greater efficiency of the workmen. In reality, there was a deficit in their accounts after their wants were satisfied, which could not be liquidated until they became more efficient. This greater deficiency, merely balances their accounts, but leaves no surplus as a residual.

In passing from a static to a dynamic state of society, a new difficulty presents itself in seeking to obtain a clear view of Mr. Walker's position. There are many ways in which this difficulty appears, as it crops out in some form in almost every portion of the discussion. I do not, however, wish to imply that it is something peculiar to the writings of Mr. Walker, since none of his predecessors are free from the same source of confusion. I desire merely to call attention to an ambiguity in the use of a few economic terms, through which one important part of economic doctrine has remained without a definite solution. Perhaps as good a way as any to bring out the ambiguity to which I refer will be by comparing a couple of Mr. Walker's definitions of wages. In section 319 of his *Political Economy,* he says, "Real wages are the remuneration of the laborer as reckoned in the necessities, comforts, and luxuries of life." In section 326, however, he says, "These three shares (rent, interest, and profits) being cut off, the product of industry, the whole remaining body of wealth, daily or annually created, is the property of the laboring class; their wages or the remuneration of their services." In these two definitions, a fundamental distinction is overlooked, which, if recognized, would make them contradictory. This distinction I tried to make clear in a recent number of this *Quarterly.* I there sought to show that the whole wealth of a nation is divided into two classes, which might readily be distinguished by the terms "product" and "produce." These terms have now no distinct meaning, and might be placed in contrast in a definite way if a worthy end could thereby be secured. Be it as it may, as to the desirability of using these terms with a fixed meaning, there can be no doubt that they, as now used, include two distinct kinds

of wealth. Some wealth is in such a form that it can be made at the present time a source of pleasure; while other wealth has a value, not as an immediate source of pleasure, but because it is a necessary means of producing wealth that can be enjoyed in the future. We all want bread, meat, clothes, and houses on their own account, because they are things we desire, and without which we cannot be happy and contented. Tools, machinery, and factories, however, are not desired for the pleasure we can get from them, but because by using them we can have, in the future, a greater supply of bread, cloth, and houses. Produce is the source of present utilities, while products are the cause of future utilities. As we value present welfare higher than that of the future, a day's work in produce like bread or cloth has more value than the same quantity of work in products like ploughs or looms.

I do not stand alone in emphasizing the importance of this distinction. Professor Böhm-Bawerk, in his epoch-making work on capital makes it the central thought in his explanation of interest. He calls the two classes of commodities present goods and future goods, and demonstrates in the completest way the necessity of this distinction to a clear perception of the phenomena of interest. The difference in the value of present and future goods is due to the difference of our esteems of present and future welfare, and this greater value of present goods is the measure of interest.

This distinction, however, is of equal value in clearing up the mysteries of the problems about wages. The first question to settle definitely is the meaning conveyed by the word "wages." Shall wages be estimated in present or future goods, or in both? If a man works a week for ten loaves of bread, five pounds of meat, and a pair of socks, a hoe and a spade, what are his wages? If we take Mr. Walker's first definition, the hoe and the spade are not a part of the wages. They cannot be reckoned among either the necessities, comforts, or luxuries of life. Yet according to the second definition, they are wages. They are certainly a part of the whole body of wealth of the laborer.

When it is said that wages are paid out of the product of industry, is there not an ambiguity in the use of the term? Sometimes it seems to be used as an equivalent for present goods,—things men can enjoy without waiting. Again, it is used as including all commodities produced in a given period, whether they be present or future goods,—ships, engines, looms, as well as food, clothing, and fuel.

Now, it is evidently a very different problem to determine how much produce or present goods the laborers can get, from that of ascertaining how much they can get out of the whole body of wealth created by the industry of a given period. Nor is it possible to discuss the wages question intelligently until the difference between these two problems is clearly seen. The mass of the laborers are engaged in the production of future goods. How much they could get of these goods is an easy problem to solve, but the solution of this problem does not tell how great a quantity of present goods they can get to consume. If the laborers increase in efficiency, there is an

increase of future goods, but no immediate increase of present goods. Suppose a thousand laborers each day build a ship. The share of workmen in ships is evident, but we do not yet know how much their wages are as reckoned in the necessities and comforts and luxuries of life. These articles are present goods whose value depends more largely upon past than upon present production. If these men produce two ships a day, their share in ships is doubled; but would any one assert that they could always exchange these ships for twice the quantity of present goods in the form of food, clothing, and shelter?

To say that men are paid out of the product of their industry does not solve the real wages problem, if "product" is used in a general way, including every commodity upon which labor is employed. We can, indeed, determine what percentage of each commodity the laborer who made it can obtain. Of ships, ploughs, looms, engines, and the like, there would be some fixed share to which the workmen would be entitled. When, however, each workman receives his share in the article he has produced, there is yet another step to be taken before the value of his product in produce can be determined. His wants can be supplied only when he has exchanged his products for present means of enjoyment,—such as bread, meat, and cloth. The value, therefore, of his personal product will be fixed by the produce (present goods) for which it will exchange. It is of little moment to him to know his day's labor will give him a larger part of a ship or a loom, if he can get no more of any of the present goods he really needs.

The efficiency of the workmen has a large direct influence upon the quantity of products, but the value of these products depends upon other considerations. Increase the ploughs, wagons, looms, and other products by ten per cent., and a day's work will purchase ten per cent. more of any of these articles. When, however, we compare these products with present goods, to determine what will be the value of the former in the latter, it will be seen that a day's work will be of no greater value in present goods than before. The present goods have not increased by ten per cent. As the products have increased, it is likely that a year from now there will be more consumable goods. By keeping the products, a part of this subsequent increase of consumable goods can be secured by the workman; yet future pleasures are not esteemed so highly by him as those of the present. Their value will be less by the difference between present and future happiness. It is wrong, therefore, to say that an increase in the quantity of products increases their value, so long as the present pleasures are chosen in preference to future pleasures of the same kind and quantity.

The point of view I wish to emphasize is now, I hope, clear. Products, by themselves, have no value. Their value is determined by the quantity of produce or present goods for which they will exchange. There is no motive inducing men to produce commodities they cannot consume, except to exchange them for present or future utilities; and the value of all products must be measured in utilities of one of these kinds. No one, for example, would make a ship or a loom unless he could exchange it for

goods he can now consume, or by using it he could increase the goods he would have for consumption in the future. Wages must therefore be estimated in consumable goods of some kind. The present quantity of such goods is fixed by past production. An increase in the quantity of products will not increase their value in present goods. Double the quantity of products, and the value of each article in present goods will be reduced by one-half. It is the same problem that we have with an increase of money. Its value will fall with every increase of quantity, unless commerce is also increased. Workmen therefore cannot increase the present value of their work from this source.

If an increased quantity of products has to the laborers a greater value, it must be that the future utilities they will in time create have a greater present worth. The value of the products cannot be more than the present worth of the utilities which will be produced by the aid of these products.

It is a mistake to assume that wages depend upon the productive power of the laborers. When we know the productive power, we can tell how much they *can* produce; but how much they *will* produce depends upon the intensity of their present desires and their estimate of future welfare. If there is no change in either of these factors, an increase of productive power will reduce the time of working, but will not increase the total production. If men working ten hours a day have their productive power increased ten per cent., they will only work nine hours in the future if there is no increase in their wants. There is at the present time an abundance of opportunities to work which are not utilized, merely because the pressing wants of the laborers are satisfied, and they are not willing to work for the less pressing ones. The limit to production is not the lack of productive power. We do not need new inventions so much as we need new wants that will urge us to action. By this I do not mean that men would not work a longer time for a greater quantity of present goods. But present goods are limited by past production, and cannot be increased in a moment. It is the low value of future utilities that keeps men from working more; and, as long as future utilities have so low a value, wages cannot increase with the increase of productive power unless there has been a previous increase of the stock of present goods.

In short, the wages can come from two sources only—present utilities, or the value of future utilities. One or both of these funds must be increased before wages can rise. The mistake of the opponents of the wage-fund theory is that they suppose wages vary with the quantity of future goods, and not with their value in present goods. If the quantity of present goods is limited, wages cannot increase unless the value of future goods in present goods is increased. It is too much, of course, to say that the amount of the wage-fund is determined by the quantity of present goods. The missing factor, however, is not the productive power of the laborers, but their estimate of the comparative value of present and future goods. Only as the value of the latter increases can they decrease their dependence

upon the stock of present goods which capitalists possess. Double the quantity of future goods without increasing the quantity of present goods, and the value of each article in present goods will be reduced by one-half. The capitalists who exchange present for future goods will now get the whole gain unless the value of future goods is raised by an increased desire for future welfare on the part of some portion of the community.

Coming back to the definition of terms, I doubt whether the problems of distribution can be solved in a satisfactory manner until wages, rent, and profits are estimated in present goods only. At the end of each period of production there is a given quantity of present and future goods to distribute. The first question is, who will take the future goods? If the workmen, employers, and landlords are all as willing to take future as present goods there can be no share for the capitalists. This fourth share—interest—comes in because the other three factors are not willing to wait. Future goods thus lose value in comparison with present goods, and fall into the hands of those most willing to wait. Whoever in distribution takes future goods, by the very act becomes a capitalist. A capitalist has no distinct meaning, unless defined in this way. Future goods are capital in the possession of the workmen, just as much as if in the hands of persons who live from interest alone. Only a few economists, if any, would think of estimating rent or profits in any but present goods. If a farmer holds his wheat for a rise in value the gain is regarded as interest, not rent. And with an employer, also, if he keeps his products for future gain, the extra return would be interest, not profits. Define wages in the same way, and all four factors in distribution have a definite meaning, and the laws which determine them can be discovered. When, however, wages are defined in terms of "product of industry," the laborer's reward for waiting seems to be included in wages as well as his reward for working. There is thus an element of uncertainty introduced, which must obscure all the laws of distribution.

It does not, therefore, seem out of place to ask Mr. Walker to define more clearly just what he means by wages, and whether "product of industry" is to be used as an equivalent for present goods or, in a more general way, to include future as well as present goods. As Mr. Walker made profits a fixed fund by giving the term a clear meaning, so must wages receive a definite meaning before its laws can be clearly determined.

The reaction against the wage-fund theory, in which Mr. Walker has taken so prominent a part, forms a distinct epoch in the forward movement of economic thought, and will make an interesting chapter in economic history. It is due the student of to-day and of the future that the study of this epoch be made easy as possible. We all know how difficult it is to get at the real meaning of the defenders of the wage-fund theory. It is certainly to be hoped that there will be no need of controversy as to the meaning of the opponents of this theory. Yet, unless they become more careful in the use of their terms, their successors may find their meaning as

difficult to ascertain as that of their predecessors now is. It is of course hard to foresee the direction in which the current of economic thought will tend; yet some of the outlines of a newer movement are now apparent, and future progress would be hastened if the past, the present, and the future of economic thought could be brought into more harmonious relations.

MALTHUS AND RICARDO[1]

THE recent publication of Ricardo's letters to Malthus has attracted the attention of the public to those economic controversies of the first quarter of our century, in which both Malthus and Ricardo took such prominent parts. At an earlier period Adam Smith formulated many of the leading doctrines which have since become economic axioms. He, however, had an easy task to perform. All the propositions he developed were at least dimly seen by previous writers, and many of them had been carefully discussed by scholars familiar with special topics. Locke, Hume, Steuart and others, had accomplished much, each in his own field, and it only needed a careful thinker to collect the scattered material, write it in a harmonious whole and bring out those underlying principles which have made economics a real science. I do not wish to disparage the services of Adam Smith, yet it should be recognized that his task was made easy by the labors of his predecessors and pleasant by the harmony of his views with the spirit of the age in which he lived. From the very start he had no worthy opponent, and all the laurels of victory have been bestowed upon him ever since by every class of economic writers. From one extreme of economic opinion to the other, from inductive as well as deductive writers, there has been a constant stream of praises bestowed upon the founder of our science arising from the feeling that each writer had, that Adam Smith was really on his side. The father of Political Economy doubtless merits all the praise which his many disciples have bestowed upon him, yet fortune has favored him in casting his lot in such pleasant ways.

The very opposite of this has been the lot of economists, to whose views I desire at the present time to call attention. Malthus and Ricardo are, indeed, familiar names, and posterity is not likely soon to forget either of them, yet as their names are attached to disagreeable doctrines, they are thought of as enemies of their species rather than as public benefactors. Malthusian and Ricardian are words usually employed as terms of contempt, and even the best friends of these economists seek rather to apologize for their shortcomings than to offer a sympathetic defence.

By examining the conditions under which they wrote it is easy to see why Adam Smith is remembered for the best of the work he did, while Malthus and Ricardo are known mainly for their worst. What Adam Smith said was in harmony with the tendencies of his time. The age that had just passed had experienced the evil effects of governmental interference in its worst form, and was ready for the doctrine that that state governs best which governs

[1] Reprinted from *The Publications of the American Economic Association,* Ser. I, Vol. IV, pp. 9–34, September, 1889.

least. To place the production of wealth within the domain of natural law and out of the reach of the disastrous influences of ill-advised public officials, presented to the people of the last century the only possible relief from the evils of the then prevalent forms of parental governments. The eighteenth century was a century of optimists and they welcomed the views of Adam Smith as allowing an extension of their hopes to a new field. These optimistic hopes were bound to be dissipated, and Malthus and Ricardo were the unfortunate instruments which brought the people of their age back from utopian ideals to the stern realities of that hard world in which we must all live and work. The law of population showed that there were real obstacles to progress which were not of a political nature, and that the social millennium could be reached only after long ages of slow development. No wonder the prophets, who thought they viewed the promised land and hoped soon to taste of its milk and honey, stood aghast at such a doctrine and hurled at its author all the offensive adjectives they could command. But their cup was not yet full, for with this doctrine were soon coupled others which seemed to take away all hope and make the future a dismal abyss. It was bad enough to find that there was a limit to population, it was worse to discover that as population increased the share of each individual would decrease, but it was unendurable to be told that of this reduced share an ever increasing proportion must be deducted from wages to go as rent into the pockets of a class who earn as much when they sleep as when they wake.

The success of Adam Smith and the partial failure of Malthus and Ricardo are worthy of notice from another point of view. The doctrines of Adam Smith were founded upon the plainest and most fundamental facts of human nature and of the external world. The universal prevalence of those motives which impel every one to seek his own interest, the benefits of commerce, the dependence of efficient production upon the division of labor, the mutual advantage which all nations derive when they concentrate their productive forces upon the production of those commodities which their natural resources and climate will best utilize—could any opinions be more easily proved, or could any doctrines be more agreeable to teach? As the powerful forces upon which these principles are based are seldom or never counteracted, the doctrines derived from them can be proved by inductions from experience, by the history of the past, and by deductions from human nature and the external world. All three methods coincide in their results and every shade of opinion finds an appropriate method of proof by which these doctrines are verified.

The doctrines of Malthus and Ricardo are not capable of so ready a proof. Many opposing tendencies have to be separated one from another, and the relative importance of each element must be measured with care before it can be determined what doctrines are to be drawn from each of the leading tendencies. Only a rigid examination will show the real harmony of these doctrines with the complicated phenomena of life by which we are surrounded, and long explanations must be made before even an active mind

can separate the few underlying principles, which are important, from the mass of concrete facts by which they are covered and obscured. Under these conditions induction, deduction and history are liable to furnish different answers to the economic problems in whose solution humanity has so great an interest, and only the most able minds can see clearly through the mists by which they are surrounded and determine the bearing of the unknown coast we are rapidly approaching. It is no wonder that so many fail to grasp the truths for which Malthus and Ricardo labored. The power to combine in proper proportion the principles deduced from ultimate economic causes with the results of observation and history is a gift which as yet nature has rarely bestowed. Even if it be admitted that many of the conclusions of Malthus and Ricardo are defective, it will require men of equal, if not of still greater ability, to detect their errors and to direct the attention of their fellows to those avenues by which humanity can avoid the rocks which have wrecked so many hopes. In the complexity of economic phenomena there is a sufficient cause for the present slow progress of political economy, and only by the steady growth of higher types of reasoning can we expect a solution of our present problems and the advance of our science to that stage in its development where there will be an unanimity of opinion.

My plan will not lead me to develop in full the leading doctrines of these writers. I desire only to make prominent the differences in the premises from which they started upon their investigations, and to show how the mode of thought which is natural to each of them, influenced him in his reasoning and kept both from attaining a common point of view from which they could make their conclusions harmonize. If we wish to determine the methods of investigation used by any author, it is not sufficient to classify him merely according to the school of economics to which he belongs, and regard him as inductive or deductive because his school is supposed to favor one or the other of these methods of investigations. Even at its best such a classification is very crude. Every writer makes free use of both induction and deduction, applying the one method to this class of problems and the other method to that class.

The vital question is to discover in what class of problems the author reasons deductively and in what inductively. The education, occupation and places of residence of each person cause him to view the economic world [in a special way] influenced by his environment, and will lead him to treat each problem inductively or deductively, according to the prominence which it has in the surrounding economic conditions. Every one is strongly inclined to use deductive reasoning in those fields which are emphasized by his social and economic environment, or by such an education as will lead him to exaggerate the importance of any special phenomena. The more prominent a topic becomes the more it seems subject to law, and the more likely are those who are deeply impressed with its importance to see the law and the premises upon which it is based.

If we examine the works of Malthus and Ricardo to determine what dif-

ferences in method can be discovered in their writings, it will be found that their controversies about rent and its causes furnish the best material for our purpose. In this discussion we find their differences most prominent, and at the same time they show the thought of each writer uninfluenced by that of the other. The long period of intimate friendship which these writers had with each other in subsequent years could not but exert an influence toward creating a harmony, even if it was not powerful enough to wipe out their fundamental differences. This discussion was opened by Malthus in his "Inquiry into the Nature and Progress of Rent." The origin of this essay is peculiar and throws much light upon the point of view of its author. Adam Smith, in explaining rent, sometimes spoke of it as [caused by] monopoly, without perceiving the real difference between the cause of the high price of food and that of monopolized articles. From this view of rent the appropriation of land caused a monopoly; yet as property in land leads to its best use, this monopoly was necessary and useful. In an edition of the "Wealth of Nations," edited by Mr. Buchanan, this idea of monopoly was pushed still further. He regarded the rise of rent as prejudicial to society. It takes from the consumer what it gives to the landlord, and thus is a mere transfer of revenue from one class to another.

This argument aroused the mental activity of Malthus in a similar way in which the views of Godwin affected him at an earlier period, and the results of this activity were even more beneficial to the development of economic theory than were those of the earlier epoch. Malthus sought to show that the rise of rent was beneficial to public interests, and was not a mere subtraction from the revenues of one class in the interest of another. In trying to prove this he seems to have stumbled upon the correct cause of the rise of rent and opened up a discussion which did not cease until several of the most important of economic doctrines were added to the science.

The position of Malthus [was that] the cause of rent lies mainly in the fertility of the soil. A high rent is only possible where the fertility of the soil is so great that many more persons can be supported by the produce of the land than are required to cultivate it. The possible rent is determined by subtracting the quantity of food necessary to support those who cultivate it from the whole produce of the land, and it increases as the land becomes more fertile. This possible rent becomes actual rent through the action of the law of population. Humanity has a great tendency to overpopulation, and any increase of food will be quickly followed by a sufficient increase of population to consume it. "If," says Malthus, "an active and industrious family were possessed of a certain portion of land which they could cultivate so as to make it yield food, and the materials of clothing, lodging and firing, not only for themselves but for five other families, it follows, from the principle of population, that they would soon be able to command the labor of five other families, and the value of their landed produce would soon be worth five times as much as the value of the labor which had been employed in raising it."

From this point of view a tendency to overpopulate, combined with a fertile soil, necessitates a high price for food. The too rapid increase of population cannot be checked without a high price of food. The price of food must be high if the price of men be low.

The development of this doctrine shows why the increase of rent does not come from the other classes, but is an addition to the revenues of the nation. Mankind did not at first cultivate the best lands or use a large amount of capital, nor had they the seeds, tools or knowledge, necessary to produce enough upon the land to make it yield rent. A mere existence was all any land could offer to its cultivators, and the growth of population was held in check from the impossibility of increasing the supply of food. In time with better seeds and tools the produce of the best lands was increased beyond the amount needed to support the labor employed upon it and then rent arose. It would be wrong, however, to say that the amount of the rent was taken from the laborers. They never had it so that it could be taken away. It came from the increase of produce caused by the improvements in the production of food. With every such improvement the rent of land must rise if the price of food cannot fall. And the price of food cannot fall so long as a strong tendency to overpopulate keeps wages at a minimum.

Malthus thus took up the problem of rent to refute the claim that rent was a mere transference of revenue from one class to another, and not a real gain to society. His position seems reasonable, and his argument conclusive, yet the answer which his opponents were to make lies so plainly on the surface that the wonder is that Malthus did not himself see it and answer it in advance. By a slight change in the premises from which Malthus reasoned, or, perhaps, it will be better to say by overlooking the historical development of mankind, a new standpoint is acquired from which the views of his opponents could be justified. They now had a chain of reasoning simpler than that of Malthus, and one that harmonized more with the tendencies of the age.

It is necessary to retrace our steps a little and show the development of economic doctrine in another quarter before we can clearly perceive the genesis of these new ideas. The influence of the landlord classes upon the legislation of England had been so great that corn laws had been enacted to raise the value of corn above its normal cost. Such a policy necessarily created a bitter opposition and led to one of the most spirited and valuable controversies which have ever been waged about economic doctrine. It was a desire to throw light upon this problem that caused West to write his memorable essay on the "Application of Capital to Land." This essay contains all the premises from which Ricardo subsequently reasoned with so much force. Instead of presenting the development of rent in an historical manner, as had been done by Malthus, we have the purely hypothetical supposition offered that mankind began upon the best soils with the capital and knowledge necessary for their best use. Then the most fertile land would be taken first, and as poorer soils were brought into use rent would rise. Profits were shown to depend upon the margin of cultivation, and the

doctrine of no-rent lands is brought forward as a fundamental condition determining the amount of rent. West, for the first time, established the law of diminishing returns, and clearly saw the immense change in economic doctrine which would follow from this law. Few writers have ever expressed new doctrines more forcibly than West did, and it is no wonder that these doctrines, when further developed by Ricardo, were accepted by the people of that age in preference to those advocated by Malthus.

A closer comparison of these doctrines about rent will be of value to us to show the difference in the premises from which Malthus and Ricardo set out, and the peculiarities of the method of reasoning which each of them was most inclined to use. They each had also a concept of mankind developing under certain physical and social conditions, and the differences in their conclusions are largely due to differences in the conditions under which they supposed society to develop. Malthus was naturally influenced by his studies about the law of population, and those studies led him to investigate the historical development of mankind. Ricardo had in mind the case of a new colony from a highly civilized nation. Such a colony would naturally begin cultivation upon the best lands. Here their rate of profits and wages would be high at the start, but would be gradually reduced as the increase of population caused the cultivation of poorer lands to supply the increasing demand for food. The effects of the cultivation of poorer lands now receive an undue prominence, and the connection between the margin of cultivation and the rate of profits could be seen easily. As rent would rise as profits and wages fell, rent would not be an addition to the resources of the nation; but merely a transfer of wealth from one class to another.

With Malthus, however, the case is different. The society he had in mind began with a low rate of profits and wages, because the earth cannot yield more to those who have so little knowledge, skill and capital. With each increase in productive power there is a possibility of a higher rate of profits and wages, yet the tendency to overpopulate is so strong that the increase of productive power is constantly lagging behind the possible increase of population. Wages and profits are thus kept at a minimum and all the benefit of the increased productive power goes to the owners of land as rent. If rents rise the proper inference is that there has been an increase of productive power, and not as Ricardo infers, a transference of wealth from other classes to the landlords. The rise of rent is thus directly associated with agricultural improvements, and great stress is laid upon each step in that enormous progress which separates the agriculture of to-day from the primitive methods of our forefathers.

It is now easy to see the leading characteristics of the two men we have under consideration. It mattered not to Ricardo that the suppositions with which he illustrated his ideas had no likelihood of being realized in our world. He was satisfied so long as the supposition placed the thought he was developing clearly before his readers. Malthus had another ideal. He sought to keep his readers within the realm of facts, and illustrated his arguments by some suitable event in real experience. Ricardo always finds some

one cause for each class of phenomena with which he deals, and seeks to separate each cause from all others in such a way that its effects are not lost in their aggregate effect. Malthus usually found two or more possible causes for each class of phenomena, and preferred to deal with complex cases, under the actual condition in which we find them, rather than artificially to separate them.

This tendency in Malthus to find a plurality of causes, where Ricardo sees only one, is the primary cause of the differences in opinion between these two men, as far as their differences depend upon their methods of reasoning. Malthus discovers three causes of rent, while Ricardo recognizes but one—differences in fertility. [In considering profits] Malthus regards them as affected both by the increasing difficulty of procuring the means of subsistence and by the proportion which capital bears to labor. Ricardo, however, has in mind only the natural fall in the rate of profits caused by the increased demand for poorer lands to support an ever enlarging population. In considering wages Ricardo regards labor as a commodity, and emphasizes those causes which fix the price of labor at that point where the laborers can merely exist and perpetuate their race without increase or diminution. The opinions of Malthus were not so rigid, and led him to admit the influence of many other causes upon the rate of wages.

The emphasis which Ricardo places upon some one cause of each class of economic phenomena creates in him a strong tendency to use the geometrical method of reasoning. He can hardly be said to have originated any economic doctrine. His value as an economist depends solely upon those trains of deductive reasoning by which every consequence of each premise is brought to light. Had he not overlooked every subordinate cause, and reasoned strictly according to geometrical usage, his writings would have had nothing to distinguish them from those of Malthus or West.

In the first edition of his book on population, Malthus made use of geometrical reasoning. The law of population, as he there states it, is the result of a bold use of supposition and abstraction. The hostile criticisms which this doctrine received seems to have convinced him that he had gone too far. At least in his subsequent writings he draws his illustrations from real life, and does not base his conclusions upon events which rarely occur. For example, in his work upon population, he seeks to discover the natural rate of the increase of population by taking the case of new colonies. Under the abnormal conditions which new colonies present he found that population doubled in twenty-five years; so he took this as the natural rate of increase and founded his law upon these facts. At a later period, in his discussion with Ricardo about rent, the latter made use of new colonies to show that the rate of profits begins at a high point, when only the best lands are cultivated, and is gradually reduced as poorer lands are brought into use, thus causing a large transfer of revenue from capitalists and laborers to the landlords. Malthus now objected to the use of the abnormal conditions of new colonies to prove propositions which are to be applied to the ordinary conditions of older states. He thought that he had proved that his views were

correct if he showed that under the normal conditions under which civilization must progress, rent was increased from the gains of improved production and not through a reduction of the shares of the other factors in production. This tendency toward a more concrete form of reasoning grew as the years went by, and thus he became separated farther and farther from the abstractions of Ricardo. While he was one of the originators of the theory that differences in fertility are the cause of rent, yet he gradually placed less emphasis upon this cause of rent until in the end he allowed it to fall almost out of sight.

Ricardo continued to the end that bold use of supposition and abstraction which has given him so prominent a place in economic literature. He had but few ultimate premises, yet he made so skilful a use of them that a coherent body of economic doctrines was formed. Every new fact was so skilfully interpreted by him that it added to the strength of his position. The most forcible objections which Malthus could urge against him only gave him an opportunity to make his doctrines more plausible by showing the harmony between them and the supposed objections.

In many respects it is unfortunate that Ricardo did not write more fully his views upon population. Had he been the author of that first edition of the essay upon population, instead of Malthus, he would not have receded from his original position. The celebrity with which Malthus withdrew from his first position acted as detrimentally upon the further development of the principle of population, as did in recent times the hasty retreat of Mill upon the theories concerning wages. In both cases there is a break in the logical development of the subject, which is a puzzle and a stumbling block to all consistent thinkers. No matter how false, in the end, a doctrine may prove to be, it must have all its logical consequences developed, or the science of which it is a part will remain in a hazy condition, out of which no progress can be made. The clearer . . . ideas which we now have about rent we owe to Ricardo and not to Malthus. Had Ricardo, like Malthus, subordinated abstract doctrine to concrete ends the discussion would have relapsed into that obscurity in which it was left by Adam Smith, and there it would have remained until some bold thinker was willing to stand by his colors until the strength of his position was thoroughly tested. The retreat of Malthus may have been judicious from a practical point of view, yet it was caused by the abuse of his opponents and not by the logic of their arguments. The many confusing interpretations of the doctrine which we yet have, show how much the growth of clear thinking has been retarded by the retractions of Malthus. We must find a thinker who is firm enough to withstand abuse before the logical consequences of each interpretation can be fully developed and a decision reached which will stand the tests of scientific investigation.

It is also unfortunate that the author of the law of population was not a firm adherent of the utilitarian theory of morals. There would then have arisen a classification which would have done much to make the subject clear. If all feelings are viewed as either pleasure or pain, the third class

of checks to population which Malthus calls moral restraints, have no logical basis. A restraint is a necessary cause of pain and a reduction of happiness. Had Malthus said a tendency to overpopulate necessarily results in vice, there would have been good reason to introduce the idea of moral restraint, for moral restraint is the antithesis of vice. But moral restraint is not different in kind from misery, if misery is a synonym of pain. Perhaps by misery Malthus meant what we would term poverty. In this case his classification of pains is incomplete, and he should have completed his classification rather than have receded to an illogical position. There are now three distinct doctrines which lie confused in the discussion of the law of population. Does the tendency to overpopulate result in vice; does it necessitate poverty; and does it reduce the total happiness which could be enjoyed if the tendency were less? Each of these doctrines must have its consequences logically developed before the difficulties which now confuse the discussion of the law can be cleared away.

In the foregoing discussion we have kept in view, mainly, the differences in the methods of investigation used by our two authors. They differ not merely in their mode of reasoning; they also differ in the premises from which they start. The social and political environment of each man furnishes him with most of the premises from which he reasons. He differs from persons reared in other conditions, not merely at single points, but in all those ideas and axioms which naturally become the common property of those who have the same environment. These differences we see most clearly when we compare one nation with another, or the people of one age with their distant ancestors. The effects of the same food and climate, the influence of the same education and religion, the restrictions of the same government, habits and customs, all tend to develop in each nation a peculiar type of civilization which distinguishes its citizens from those of every other nation.

When individuals of different nations meet and endeavor to discuss doctrines or ideas which have arisen out of their social and political environments they differ not so much in their methods of reasoning as in the premises or axioms from which they reason. The peculiarities of home conditions bring certain facts into prominence, and so long as each disputant makes emphatic those facts which become prominent in the peculiar conditions in which he lives there can be no harmony in results, even if the same method of reasoning be used. If A regards as the general rule what to B is only an exception to some other rule, the difference is not one which can be harmonized by any rules for reasoning. The trouble is that they do not have the same world in mind. One sees the economy of Saturn while the other sees that of Mars. The economies of England, Germany or America do not differ so widely as those of separate planets, yet they are distinct enough to cause the people of each nation to look upon the world in a peculiar way, and to lay stress upon those facts which their own civilization brings into prominence. The diet also has a commanding influence upon the economy

of each nation, and causes the attention of its economists to be attracted to certain problems connected with the food supply. The long discussion by Adam Smith and his followers about the connection between the price of corn and the rate of wages, could have risen only in a nation where one article of food formed the staff of life of the people. So, too, the idea that a high standard of life could be maintained only by a people who use costly food needed the same conditions to develop it. It is an Anglo-Saxon idea that happiness consists in having a small part of a rare article. When this idea is outgrown, a large part of English economic doctrine will be displaced by other doctrines growing out of broader ideas of happiness.

The ideas of Malthus and Ricardo were based upon distinct national economies. In England at this time a new economy was displacing the old. The commercial centers were growing in importance, great discoveries in science were opening up the way to modern production, and wonderful inventions were rapidly revolutionizing industrial processes. England had been a land dominated by agricultural ideas and ruled by the landed classes. Now commercial ideas were coming to the front and the political power was passing from the country to the town.

The home of Malthus was in the country. His education made him familiar with agricultural needs. His environment made him have a keen interest in agricultural improvements and prosperity. His ideals of population were derived from a laboring class degraded by an absurd poor law and cut off from those stimulating influences which were at work in the growing, progressing cities.

Ricardo and his ancestors were dwellers of the town. His education and vocation made him familiar with commercial usages and led him to emphasize those ideas which dominate the trading world. He felt keenly the evils of bad money and the need of some better regulation of the currency. He viewed the laborer as a commodity because the cost of labor was the only element of the social problem with which he came in contact. He knew nothing of the conditions needed for agricultural prosperity, and viewed an acre of land just as he would a coal mine or a fishery. As he thought only of profits, it is natural that he should see that the rise of rent reduced profits and that profits varied inversely as wages. The trading classes are, by their location, cut off from the producing classes and are vitally connected with them only by the causes raising or lowering rent or wages. Had not Ricardo developed the laws associated with his name some other person of his class would have done so, as they are the inevitable outcome of those ideas which control the trading world.

Adam Smith may have been a true philosopher who studied the industrial development of the world without bias or interest, but both Malthus and Ricardo were the creatures of their time. They found their premises, each in his peculiar surroundings. Both of them were ardent disciples of Smith. Their interpretations of his doctrines were different, because the economical world in which the one lived differed in many essential features from that of the other. Doubtless each of them thought he was describing England

and its economic laws, yet he was impressed only by certain phases of national life, and even these were seen through glasses colored by preconceived notions and inherited ideals.

Malthus was a much better observer than Ricardo, and the world he saw was much nearer the real England than that of Ricardo. He was, too, a close student of history, from which he derived correct ideas of the motives and sentiments by which real men are moved. In these and many other ways he had an advantage which he often used with skill. Yet from the same sources came also the most marked of his weaknesses. He felt and sympathized with the real world about him and had an uncontrollable desire to justify its ways. His country home and knowledge of English history led him to admire the customs and usages of his ancestors, and often caused him to forget that the England of his day was not the England of the past. He was too eager to espouse the cause of the landed interests and felt too strongly that their prosperity was identical with national prosperity. These views and motives induced him to enter upon all his writings. Had not the ideas of the French revolution threatened the stability of good old English ways he would not have written upon population. Had not the right of landlords to rent been questioned he would not have developed the doctrine of rent. The strength of his feelings was so great that he often forsook a logical position merely to satisfy them. What but his feelings caused him to forsake a logical statement of the law of population? What else could have caused him gradually to lose sight of fundamental truths, which mark his earlier economic discussions, until at the end of the controversy with Ricardo they are so modified as to become mere empirical laws?

From Malthus we can see the dangers of one who reasons about the world in which he lives, and the difficulties he encounters when feeling conflicts with judgment. In Ricardo, however, we find a man whose connection with the real world was so slight that he found no difficulty in making the world correspond to his ideal. His success as a stock-broker was so great as to warrant the opinion that he was a good judge of the men with whom he came in contact. He saw that they were moved only by self-interest and bought and sold whenever a profit could be made. They did not hesitate to sell goods to the enemies of England if thereby a penny could be gained. They shipped out gold and culled coins in spite of the laws of the land. They were willing to withhold commodities needed by the government until their own terms were secured. Nor did they scruple to start false rumors of national defeats if they could gain a fortune by depressing public stocks. Is it a wonder that Ricardo thought the whole world is moved solely by selfish motives when that portion of it with which he came in contact exhibited only those characteristics which show themselves upon the world's markets? How easy it is in such a place to form an idea of an economic man, moved only by self-interest, and to think of laborers as commodities that have a cost of production. Ricardo's world was London, and in it men and capital moved from one occupation to another for the slightest gain.

It was only natural that he should think other industrial worlds were like his own. Yet in doing this Ricardo was not to blame. He only acted upon the same principles which were in universal use in his time. The ideas of the French revolution, and the doctrine of natural rights, taught that all men were equal, and that the lowest freeman only needed the overthrow of governmental restriction and inherited customs and habits to place himself upon equality with any of his race. And the utilitarianism of Bentham seemed to teach that self-interest was the only active motive in men, even in their moral actions. Inculcate into a stock-broker the doctrines of Bentham and that of natural rights, and cement the two with the ideas of the French revolution and what is more natural than that he should imagine men to be governed solely by natural law? From this standpoint the key to the knowledge of men lies in any one man, and that of every soil in any one field. We thus have a simple world with but few controlling laws, and yet a simpler man who follows and who obeys a single law.

In spite of its unreality the simplicity of the economy of the world of Ricardo has been of the greatest service to economists. It has made vivid in their minds the working of several simple economic laws which in the real world have their results so intermingled that only a few empirical generalizations can be obtained. Only the abnormal conditions of a new colony, occupied by a people from a civilized nation, or the effect of some great invention or discovery, can give such a prominence to the effects of some one law that its workings can be clearly traced in spite of conflicting laws.

It has often been charged against Ricardo that his economy was not of this world, but of some other planet. The economy of Saturn may be of so simple a nature as to correspond with the conditions laid down by Ricardo, but it has little value to the inhabitants of so complex a world as the one we occupy. This standpoint, however, overlooks the advantage arising from a comparison of different economies, whether they are of different nations or planets. Suppose we could, by some good fortune, obtain a clear account of the economies of the other planets. Can there be a doubt that such knowledge would be of the greatest advantage to us? We would then have a much broader basis upon which to build our science, and could much more easily separate the general from the particular and the permanent from the transient. Each of the planets would have periods in its development when a single cause became so prominent that its effect could be clearly distinguished. Some of the planets would furnish good illustrations of the workings of one group of economic laws, and in other planets could be seen the results of a different combination of conditions.

It would be of especial value if we could learn of a world with other social, legal and moral ideas. All our civilized world has inherited about the same stock of ideas upon these subjects, and thus our history is of little importance in fixing the value of such ideas as factors in the economic development of mankind. Doubtless there are worlds where the effect of legal and moral ideas come out as clearly as the effects of competition do

with us. Could we produce a thinker who would give us as vivid a concept of such a world as Ricardo did of the world he discovered, great progress could be made.

We need such a thinker, also, to clear up the mysteries of the consumption of wealth. He must be one who can seize the essential features of the problem and separate them from the complex phenomena of actual life. Then he must put them together again in a new world where their effects will come out so clearly that they cannot be mistaken. Only a Ricardo can detect the primary laws of human nature upon which the problems of consumption depend, and trace their effects even where they are most obscured by conflicting laws.

Our world is doubtless a small world, yet it is a complex world in which it is difficult to find the proper cause for each effect. We need to become acquainted with simpler worlds, or at least with worlds which are simple where we are complex. Ricardo has given us one such world, and we make a mistake if we do not take the gift and honor the giver. His world is a stumbling block to us only when we confuse it with the real world in which we live. And for this danger we must not blame Ricardo. He was not conscious that his world was not our world. The confusion of the two worlds is due to his followers. They lived in our world and tried to convince us that it was the world of Ricardo, or that we would be in such a world as soon as the force of inherited customs, habits and laws became so weakened that their effects no longer obscured the working of the law of competition. No such danger confronts those who see that each nation and age has its own economy differing in some essential points from all others. Each economy is of value to us in as far as its controlling causes are sufficiently different from our own to bring out the effect of some new law. The economy of Saturn will be of more value to us than that of Rome, if it presents to us in a simple form the effect of some causes which could not be separated from other causes in the more complex economy of the Roman people. In fact, we are likely to learn more from a Californian, an Australian, or from any new colony where a civilized race is thrown into a new environment, than we are from the mother countries where mankind has steadily developed under the same complex conditions.

Yet from these abnormal conditions only one class of economic laws can be discovered. After we have learned all we can from new colonies, or from older countries, under the peculiar circumstances which follow an industrial revolution, still a large body of doctrines can be discovered only under the complex workings of a high civilization. The qualities, both of man and of land, undergo a gradual modification as civilization progresses from a lower to a higher type. Each real advance creates in man a new class of desires and causes him to use the soil in a new way. With every marked change in the desires of man he can almost be said to discover a new world. New productive qualities are found in every soil and more of the land becomes good land.

Economic science must therefore develop beyond the simple world in

which Ricardo lived into that complex world, the laws of which Malthus tried to elucidate. The industrial progress of this century has been deceptive and conceals the operation of many fundamental laws. When men are thrown into new and more favorable conditions, where fertile soils or great inventions reduce the pressure of the struggle for existence, there is a tendency for those qualities in men to become again prominent which this struggle must weaken and finally displace. Contact with a fresh soil in America has strengthened in its inhabitants many of those qualities which keep men crude and selfish. The great industrial revolution in England has had the same effect. The increased population has been supplied with food by a poorer use of foreign land, and not by a better use of land at home. The continued exploitation of new lands and mines has allowed an agricultural retrogression to accompany our industrial development. Progress thus seemed to lead to simpler conditions and to a man with primitive qualities. No wonder the economists were deceived and thought the real world would soon conform to the simple suppositions of Ricardo. Could we always progress through exploitation, the selfish qualities in man would doubtless soon dominate in him and make him the economic man of Ricardo. It would seem, however, that we are approaching the end of that counter-current through which the crude and the selfish in our natures have been revived. When the end is reached the true direction of advancing civilization will be revealed and the development of a better man will be furthered. Agriculture will then be progressive and new uses for land will change the poor land of to-day into fertile land. The simple economy of Ricardo will then lose its charm, and we shall all appreciate more fully the struggle of Malthus to withstand the current along which the economists of his day were carried and by which they were deceived.

THE THEORY OF DYNAMIC ECONOMICS[1]

Introduction

There are two possible starting points for economic investigation—man or nature. If we begin with man the fundamental premises lie in the subjective differences in men. If we begin with nature, the objective differences in nature form the first premises. The physiocrats to whom the classical system owes its origin, began with the environment of man, and created a science out of the conditions that limit the actions of men. As they lived in an age when the physical sciences engrossed the attention of scholars, it is not strange that they should model the science of economics upon the physical sciences cultivated at that time. This radically wrong, although highly necessary, beginning of the science brought with it a train of evils which have not yet been eliminated. It has led its investigators to esteem too highly some of those laws which rest directly upon a physical background. Men who look upon physical laws and physical standards as more exact and more definite than those laws of a subjective nature state them in a form which tends to hide their real character. They regard the physical and objective as fundamental, while the subjective and mental are brought in only as modifying conditions. The ideas of the physiocrats did not die with them; their successors continued to imitate the methods of the physical sciences, and tried to measure economic forces by objective standards.

Adam Smith was the first to make a conscious and important use of subjective premises. English investigators in morals had shown that the actions of men are independent phenomena, having laws of their own. Adam Smith thus came by inheritance and early education into the possession of a body of knowledge, and a way of looking at social and industrial affairs which was out of the reach of his predecessors in France. He had only to obtain the results of their investigations to be placed in a position to reconstruct the science. He was, however, too much influenced by them to avoid their leading errors, and hence his theories are in many respects in harmony with, if not the direct outcome of, their general point of view.

These tendencies towards a greater use of subjective laws in economics were checked by Ricardo. The law of rent vitalized and coördinated all the physical elements of the science. By uniting in an organic whole certain objective features of the economic world Ricardo gave a vivid picture of the structure of society which has ever since been the charm of those who delight in deductive reasoning. While he makes differences in the objective world the basis of his reasoning he overlooks the importance of those in the subjective world. They remain in an inductive form without any definite arrangement. He was thus enabled to make a free use of subjective facts

[1] Reprinted from *The Publications of the University of Pennsylvania, Political Economy and Public Law Series,* Vol. III, No. 2. (whole No. 11), 1892.

and at the same time to harmonize them with the objective premises that lie at the basis of his system.

The stability of the classical system could be disturbed from two directions —either by those who distrusted the deductive method and hence valued the deductive part of their work less highly than the classical economists did, or by those who had greater confidence in subjective laws, and hence sought to change the subjective elements of political economy into a deductive form. Destructive criticism and constructive efforts would have the same general effect. They would both lead to the formation of a new political economy in which man would be the central point. The progress of civilization has become so great that any fair application of the inductive method must show the supremacy of man over nature. And if any unbiased, deductive thinker should seek for differences upon which to base his deductions he could not but see that differences in men are of greater importance in explaining economic phenomena than differences in nature.

It was natural that the first reaction against the classical economists should be inductive in form. The better knowledge of the laws of agricultural production which his residence in a new country gave him, enabled Carey to cast a doubt upon those physical laws which the classical school used as the basis of their reasoning. It was no longer possible to defend a system of political economy that determined the productive power of a society, and the income of its members, solely by making deductions from the laws of rent, and of diminishing returns. The inductive and historical work of the German economists was of far greater importance, because it brought to light a mass of facts relating to the progress of society, and the evolution of man. The result of these inductive and historical studies changed the character of political economy and reversed the order in which it is studied. It became less physical and more subjective in its character, and instead of proceeding from nature to man, it became evident that economists must begin with the study of man and end with a study of the relation of man to nature.

While inductive thinkers could escape from the dominion of the classical school in the way discovered by Carey and the German economists, this road was not open to those who were deductive in their thinking. They could not consistently contest deductive conclusions with a mere appeal to inductive facts. They were compelled to take up the subjective elements of the science which the classical school had not properly utilized, and change them into a deductive form. Those who are not satisfied with deductions from differences in physical nature, must use differences in man as the basis of their reasoning. From these differences in men they must construct a subjective economy that will bind together in a harmonious whole all our knowledge of the influence of men upon economic phenomena. What the old economists did for the physical laws of the science they seek to do for the mental laws. Such economists must be more deductive than their predecessors because they are extending the use of deduction over a vast field to which the deductive method has never been applied. They must at the

same time be more inductive because the premises they seek cannot be obtained by simple inspection. Only a careful investigation of history and facts will give the basis upon which they must build.

It is not my purpose to present a complete system of economics, based upon subjective phenomena. Much of the work leading to that end has been too well done to need repetition. I shall, however, use my studies to furnish fresh illustrations of the importance of such a system, and of the possibility of applying its principles to other fields than those in which they are already in use.[1] I am interested in the problems of the consumption of wealth, and have tried to develop a theory of this subject. My main endeavor will be to show that the theory of consumption furnishes a better basis for the theories of value and of distribution than the accepted theory of cost of production. If this change is made the theory of production becomes independent of the theory of distribution, and can be presented in a way more capable of showing the causes of progress and prosperity. An especial emphasis will also be given to the causes determining the standard of life. It will, however, be necessary to direct attention, first of all, to the history of economic theory, since many of the difficulties in the reconstruction of these theories lie in the interpretation of their history.

[1] See the writer's *Premises of Political Economy* and *Consumption of Wealth.*

I

History of Economic Theory

THE history of economic theory, and the relation between its different parts, can be studied best by taking up in succession the various economies that have been given us by the great economists. There is a marked difference between the sum of the theories advocated by a given group of economists, and the economy they have formed and left as an inheritance for posterity to study. A theory is a hypothetical statement of how certain forces would act if they were isolated from their concrete surroundings. There might be a large number of theories current at a given time, and yet form no economy if the suppositions on which they rest did not in many respects harmonize. In the mercantile school there were many doctrines to be found, yet they were collected from so many sources, and in so empirical a manner, that out of their writings the reader does not get a clear idea of the economic forces whose action determines the industrial activity of the age.

An economy is more than a body of related doctrines, because it presupposes certain mental characteristics of the people; a given state of progress of the mechanical arts as well as certain peculiarities of soil and climate. Many economists have tried to eliminate all facts and suppositions that depend upon local, natural or other concrete considerations, and create a theory of economics that shall have universal validity. No such economy, however, has as yet appeared. Those who have followed this plan have either magnified a few doctrines out of all proportion to their true value, or they have kept in a hazy background the concrete industrial facts of some nation at a given point of its progress. An economy does not include all the facts of a society at a given time, but only those that have been assimilated by the economists who study this society, and used by them as a basis of their theories. Take away all the concrete facts, and the theories they form will be merely unrelated assumptions. Give all the facts an equal prominence and nothing but crude empirical laws can be found. An economy is thus a picture of a given nation, as its economists see it. It is in many regards an abstraction, with enough of concrete reality, however, to present a vivid picture of the industrial life of the people.

The intellectual process by which an economy is created is the same as that used in forming a theory. Both are abstract and consider some parts of economic phenomena to the exclusion of the remainder. In forming a theory a given class of facts is separated from the aggregate phenomena that make the social organism, and so arranged that the law can be seen. In

an economy, the social organism is abstracted from a mass of discordant facts that tend to hide the working of its general laws. The society, as a whole, and the leading features of its environment now become prominent, and its laws can be correlated into a system. The neglect of unimportant facts gives an emphasis to the salient facts of society as a fog upon the low hills and valleys brings out the leading features of a mountain range.

The history of economics is made up of a series of such economies. As modern society has developed out of one stage into another there have been corresponding changes in the concrete background upon which the economists base their theories. Many of the old theories give way to those which conform more closely to the prominent characteristics of the new age. A new body of correlated theories soon grows up which forms an economy quite distinct from that of the preceding age.

I shall not try to present a history of various economic theories as they present themselves when isolated from the system of thought of which they are a part. Such a course would occupy too much space, and would hinder rather than further the end I have in view. I want merely to keep in sight a bold outline of the succeeding economies, so that the line of progress becomes distinct. Only from the general trend of economic thought can it be made clear that the new theories of value and consumption are parts of a progressive movement, and the center points of a new economy which is arising out of the industrial facts of the present age.

II

The Economy of the Physiocrats

In the sense in which I use the term, the first economy was created by the physiocrats in France. They lived in an age when the physical sciences engrossed the attention of all scholars. The materialistic ideas coming from these sciences dominated all thinkers, and tended to make them look upon man as the mere outcome of the mechanical forces that act upon him. It is not strange therefore that when men, saturated with these ideas, began the study of industrial affairs, they should seek to erect an economic science modeled after the physical sciences. In the history of the theory of economics nothing is more marked than the dominant influence of the ideas which its investigators bring with them from the sciences they have previously studied. We have not only a physical conception of economic science, but also a moral, a mathematical, an historical, and we shall have many other like conceptions of the science as men with different educations and new ideas are attracted from other fields of investigation into the study of social affairs.

It is also difficult to see how a beginning in economic theory could have been made by any other class of thinkers, or how any economy could have preceded that of the physiocrats. By the ordinary thinkers of that age social and mental phenomena were regarded as outside of the realm of

law. Such men have been opponents of all mental sciences until they were forced to give up their opposition on account of the success of these sciences in the hands of those who believed in the universal reign of law. When these scientists began to look for laws in the industrial world the most obvious of them were the physical laws that operate from without upon men and society, and determine the trend of industrial progress. The people of a nation were looked upon in the same light as the drops of water that fall from the clouds. The physical characteristics of the land seemed to fix the line of progress of its inhabitants as fully as they do the direction in which water flows.

The economic condition of France at this time was favorable to the development of a purely physical economy. The isolation of producers and the primitive condition of their industries made the return for their labor so meager that there was little surplus after the expenses of production were paid. It was easy under these conditions to look upon the services of the manufacturer and merchant as sterile, and their profits as secured, not from what they produce, but from the surplus of the farmer. The aid of natural forces seemed necessary to get a net product where the struggle for a living was as severe as among the producers of France at this time. The physiocrats could easily overlook every subjective condition of production, and build up an economy as physical and material as the sciences that were used as models. It should be noticed that their science was not a science of man, but of the conditions that limit the actions of men. No appeal is made to subjective motives in men. The line along which men must move is made apparent by revealing the obstacles that nature puts in the way of any other line of action. Prices cannot be higher than they are because consumers have no more to give. Neither can they be lower because producers cannot live on less than they have. There must be a surplus in production above the minimum needs of producers before any subjective laws can influence the distribution of what is produced. Neither the law of cost of production nor of final utility is of importance where the maximum of production is not more than the minimum of consumption. The surplus which the aid of nature gives in agriculture goes directly into the hands of a particular class, from which it can be taken for public purposes only by means of taxation. All distribution, therefore, follows political and not economic laws, and becomes a part of morals and politics.

III

The Optimistic Economy of Adam Smith

In the writings of Adam Smith subjective laws were, for the first time, consciously introduced into political economy. While the thinkers of France had been devoting themselves solely to the study of material forces and physical laws, English investigators had brought mental science into prominence. The actions of men were no longer looked upon as the direct result

of objective forces. Subjective phenomena were now studied as an independent class, requiring special investigation and having laws of their own. While the mental laws may have a physical background, the relation between the two is so obscure that no deductions from the latter were of much importance in studying the actions of men. A series of new sciences now became possible, which were to be cultivated by men of instincts other than those that dominate the investigators of the physical sciences. To them the subjective facts were fundamental, and the laws of the mind were as exact and its phenomena as capable of measurement as were those of the material world.

Adam Smith's confidence in subjective laws is shown by the use he made of them. He traced the influence of self-interest in all economic activities with a master hand, and showed how its action forced men to do of themselves a multitude of useful acts which previous thinkers thought men would not do unless compelled by physical laws or by the power of the State. He showed how the increase of capital depended upon the growth in men of an instinct to save. He claimed that the division of labor, from which so many advantages are derived, came from a propensity of human nature to barter and exchange one thing for another. The causes that increase wealth were subjective, and progress depended upon the growth of mental qualities.

By the aid of these principles he was able to show that land was not the sole source of the net revenue of society. The return obtained from the factory and from commerce is greater than the expenditure of labor in the same sense that the return from land is greater than the labor of farmers. What nature does in agriculture, intelligence and coöperation do in the manufacture and exchange of commodities. There is now a margin of possible fluctuation of prices between the highest price for goods that consumers can afford to pay, and the lowest price that producers can afford to take. Under these conditions a theory of value first becomes of importance, and in Adam Smith's solution of this problem the first great appeal was made to subjective forces. He showed how the action of self-interest causes producers to take the lowest possible price. We now have for the first time in its most general form the theory of the cost of production as the regulator of value. The value of each commodity is assumed to be equal to the cost of its production, and hence in the value of commodities we have an exact measure of their cost. Commodities tend to exchange for one another according to the amount of labor expended upon them. The increase of productive power, therefore, tends to lower prices, and to create a net surplus to be enjoyed by all consumers. This net surplus is equal to the difference between the total utility of the commodities consumed and the total cost of their production, or what is the same, their total value; and this surplus is increased by whatever lowers the cost of production.

The optimistic economy of Adam Smith is based upon these facts and tendencies. Its leading features are the identity of cost and value, and the decreasing proportion in which the total value of commodities stands to their total utility in a society which is improving its processes of production,

There is also a large quantity of free goods, those too abundant to be appropriated. Join these with the benefits of the net surplus of other commodities, and there arises a general plenty which diffuses itself among all ranks of society.

IV

The Primitive Economy of Ricardo

The optimistic hopes of social progress and general prosperity were, of necessity, short-lived. We may shut our eyes for a time to disagreeable facts, and make a pleasing economy out of what remains. But in the end the unpleasant side of industrial life will force itself upon our attention and make us look for its causes and remedies.

This task fell to Ricardo,[1] and in his writings we must seek an economy corresponding to the new conception of the industrial world. The central thought of his system is the effect of scarcity of supply upon the value of commodities. He saw that the relative scarcity of an article gives it a value much above its cost of production. With this improved analysis of value he could deduce that the exchangeable value of commodities came from two sources: from their scarcity and from the quantity of labor required to obtain them. This valuable distinction would have probably been of little use to him had not the laws of rent and of diminishing returns been discovered by his contemporaries, Malthus and West. With the aid of this material he had the key to the distribution of wealth.

Adam Smith viewed the processes of production from a national standpoint, and dwelt solely upon the increase of productive power that comes with the advance of civilization. He assumed that the results of increased production would be fairly distributed, and believed that the reduction of the value of all commodities to their cost of production was the means by which the just distribution was accomplished. Ricardo was the first to see the falsity of this assumption. The relative scarcity of some articles causes their price to rise, and the average man loses in this way what he gains by the lower price of other articles. If scarcity is a cause of value the total exchangeable value of commodities is no longer the same as their total cost. A part of the net surplus above the total of production is appropriated by the owners of scarce products, instead of going to consumers as free surplus.

The optimistic deductions of Adam Smith were thus overthrown by the doctrines of Ricardo. Through the action of the law of diminishing returns the difference between total cost and total utility decreases instead of increasing in a progressive society. Total values, however, have increased much more rapidly than total cost as a result of the growth of rent.

To this latter fact I wish to call special attention, because its importance

[1] See the writer's "Malthus and Ricardo," *Publications of the American Economic Association,* Vol. IV, No. 5. (P. 19 above.)

to economic theory has not been fully appreciated. Before Ricardo saw the effect of scarcity on value, it was assumed that total values never exceeded total cost, and that all the difference between the total utility, which a society gets from its economic environment, and the total cost of all commodities goes to consumers as free goods or net surplus. Both doctrines are false if scarcity is a cause of value. The possession of the relatively scarce articles enables their owners to appropriate a part of the net surplus through the great increase of total values that results from the scarcity of these articles. In a progressive society, therefore, the total value of all commodities is much greater than their total cost. The net surplus above the cost of production no longer goes entirely to consumers. Producers who possess articles that are relatively scarce compel consumers to give up a part of the net produce to them. Total values under these conditions form an increasing part of total utility, even though the proportion of total cost to total utility is decreasing.

The economy of Ricardo stands in the same relation to the theory of distribution in which the economy of the physiocrats stands to that of production. The physiocrats saw the natural causes that create a net surplus in production. Ricardo saw the causes that lead to natural monopolies in distribution. He naturally chose the strongest case—the scarcity of the better grades of land. People are more easily impressed with physical differences and their effects than with the subjective differences in men. Differences in land also become apparent at a much earlier stage of economic progress than do those in men.

Ricardo's procedure was natural and necessary, yet it has led to many serious errors. The physiocrats were right in saying there is a surplus from land, but wrong in saying there is a surplus only from land. Ricardo was right in saying that there are natural monopolies that raise the value of food above the cost of production on the better lands. He was, however, wrong in implying that these natural monopolies were the only monopolies arising out of economic conditions. The tendency of the different factors in production to increase is never the same, and hence when more land, more capital, more labor and more intelligence are wanted by a progressive society, those factors that tend to increase the most slowly, become relatively scarce, and must be paid for at monopoly rates.

The economy of Ricardo and his theory of cost assumes a primitive society before superior intelligence became necessary to efficient production. He never refers to production on a large scale. All his illustrations of exchanges are from primitive conditions. A shoemaker exchanges with a tailor, and a hatter with a baker. In such a society scarcity affects the value of only a few articles like food, and the distinction between commodities that are freely produced and those that are not, is clear and important. When, however, hatters, shoemakers, tailors and other producers are formed into large productive groups to increase the efficiency of production, the higher intelligence needed to organize production is a scarcer factor than the better grades of land, and is the source of more monopolies. Some element of monopoly

is now everywhere, and causes the value of all commodities to be greater than their cost, except, perhaps, those made at the margin of production. The difference between commodities that are freely produced and those that are not, ceases to be of importance. Both classes merge into one, since each commodity needs for its production certain elements that are relatively scarce and others that are not.

The omissions of Ricardo, and even his errors, served only to strengthen his economy. They enabled him to unite in an organic whole the leading features of the economic world, and give a vivid picture of the structure of society. His economy was stable because he drew its elements equally from subjective and objective sources. An analysis of his system shows that it is based on six premises. Two are subjective—self-interest and the sexual passion. Two are objective—differences in the fertility of soils, and the diminishing returns in agriculture. The remaining two are taken from the results of civilization—the use of capital, and the division of labor. The last two premises give the causes of the net surplus that society has to distribute, and the objective premises furnish the laws which determine its distribution. Self-interest causes men to economize labor and to increase wealth, while the sexual passion leads to the increase of population, and is the cause of low wages, misery and vice. Here is a world with six of its mountains reflecting the full light of the sun, while all the foothills and valleys are shrouded in a mist.

It is no wonder that so clear and so simple a picture of a society and its economic laws should fascinate economists, nor that the strength of the theory should resist many well-directed attacks. In spite of its stability and strength, the economy of Ricardo is highly artificial. The first two premises give us a primitive man; the second two a primitive world, unmodified by man. The last two premises, however, presuppose a civilization that it is not possible for a primitive man to have in a primitive world. If a society has capital and division of labor, the results of civilization will react on the primitive man and the primitive world, and create a new man in a new world. The results of civilization will, therefore, grow in importance, and the influence of the first four premises will gradually diminish until the stability of the system is so much disturbed that a new point of equilibrium must be sought by grouping the facts in some new system. Strong and stable as it was, the economy of Ricardo had in it the seeds of destruction. How they grew the subsequent development of economists must show.

V

The Progressive Economy of Mill

The economy of Mill is in natural sequence to that of Ricardo. He was charmed by the vividness of the Ricardian ideas, and yet owing to the growing importance of new economic facts he was compelled to spoil the simple beauty of the Ricardian economy by adding premises that could not be

harmonized with it. The economic development of Mill was a struggle between a desire to be true to Ricardo and the desire to be true to the economic world about him. The latter tendency gradually gained the supremacy, and the primitive economy of Ricardo was changed into a progressive economy.

In a primitive economy the physical causes of production and distribution receive the emphasis. Wealth and progress are thought to be dependent upon and conditioned by the physical environment. In the fertility of the soil, the amount of heat, the quantity of rain, and other climatic conditions economists seek the causes of industrial prosperity. Primitive men must adjust themselves to the physical world, and gravitate towards localities where the sum of free utilities is greatest. They are mere paupers living on the bounties of nature.

In a progressive economy society becomes an organic unit with a social mechanism that breaks up the slavish dependence of man on nature. Man gradually becomes the master of nature and directs its forces. The growing supremacy of man over physical forces reduces the importance of the purely objective world, and brings into the foreground the social mechanism through which natural agents are utilized and economized. The enormous waste of natural forces is diminished, and new sources of latent force are discovered in coal, mineral oil and other products. Capital, machinery and inventions become the causes of economic activity and the means of social progress.

During this contest with nature the attention of economists is naturally directed towards the objective mechanism through which economic progress is made. Man and his wants are supposed to be fixed and to undergo no change, while society, by means of an improving mechanism, can supply these wants more fully. The increase of capital, the economy of labor, the utilization of natural forces and the many improvements in production and transportation have their importance, measured by an increased cheapness of commodities that supply old wants, and not by their power to supply new wants.

It is, moreover, easy to see why Mill's attention was diverted from changes in men and in their desires. A long series of great inventions had revolutionized industrial processes and compelled society to adjust itself to new conditions. The mechanism of society was thus shown to have as direct an influence upon the social organism as has the physical environment. The laws of the mechanism of society are put on a level with those of physical environment, and these two groups of laws, in conjunction with the selfishness and passions of men, form the premises of the economy of Mill. A primitive man is put into the mechanism of modern society.

There is thus an inherent opposition between the two leading factors of this conception of society which makes the blending of them into one economy a work of the greatest difficulty. Only a master hand and a logical mind could have made the economic phenomena of our present civilization seem to harmonize with the premises of Ricardo. Even Mill would have

failed had he not been aided by certain popular errors that gave vitality to old conceptions. The means which Mill uses to unite into one system the phenomena of different stages of social progress explain the obstacles which retarded the progress of the science and prevented the rise of a new economy more in harmony with the industrial conditions of the present age.

The plan of Mill's book is quite simple. In each chapter he always begins with the physical premises. He describes clearly and vividly in the first section the working of the principles in question in a simple society, where primitive men are conditioned by the direct action of a primitive world. Put the first sections of his various chapters in a body, and the economy of Ricardo is obtained. The physical character of the laws creates confidence in the reader, and the vivid picture makes a deep impression on his imagination.

In the subsequent sections Mill proceeds first by analogies, and then, by exceptions, to weave into the simple background of a primitive economy, the phenomena of modern civilization. The fundamental conceptions of the science are first stated in a form harmonizing with the conditions of primitive society, and then they are gradually enlarged to meet the needs of a progressive society. Take capital as an example. It is first looked upon as food because food is the first form of capital; next, it becomes commodities consumed in production; then it is made to include all the accumulated results of labor; and finally, it comprehends all funds used for education and in acquiring skill, intelligence, etc.

Mill thus makes use of almost all the facts that are emphasized by those who would build up a subjective economy, but he brings them in as exceptions to his general principles, and in a way that conceals the fact that the exceptions, if coördinated, would prove to be the rule. While he clearly presents the differences in the objective world, and makes them the basis of his reasoning, he never does the same for those of a subjective nature. They are scattered through his book without definite arrangement, yet if they were put by themselves they would make the greater part of it. Outside of the first sections of his chapters, most of his material is of a character well fitted for a subjective economy if arranged properly. In fact, reverse the order of the sections of many of his chapters, and the subjective nature of economic laws would become evident.

In Mill's discussions no economic theory depends upon differences in men. Such theories begin to appear with Cairnes and Walker. Differences in men are only recognized in the descriptive parts of his book. The deductive parts have their basis in physical differences. All deductions must proceed from differences of some kind. A science cannot progress beyond the inductive stage so long as only agreements and harmonies are sought for.

I have said that Ricardo's economy was stable because the subjective and objective features were well balanced. Mill's economy, however, was very unstable because the subjective elements in it were so much more important than the objective. The old equilibrium was maintained by the advantage the objective elements obtained from being united into a body by

a chain of deductive reasoning, and from the greater confidence of economists rather in objective than in subjective laws. Such an economy could retain its unity only for a short time. In the end it must fall apart merely from the growth of exceptions to its general laws. By giving up the wage-fund theory Mill himself may be said to have destroyed the equilibrium he had striven so long to maintain. So many causes were working to the same end that it will not serve our purpose to trace the decay of his system. Before turning our attention, however, to the constructive work of later economists, it will be necessary to give a history of the theory of cost of production held by the classical economists since this theory is the stronghold of their position.

VI

The Development of the Classical Theory of Cost of Production

The first theory of cost as the regulator of value arose among the physiocrats. They viewed the subject from a purely physical standpoint, and thought that the value of commodities could never exceed the cost of their production. They were right, of course, in this conclusion if their premises were correct. If the producing classes outside of agriculture never create a surplus, then, of course, the costs of goods must always equal their value. Under these conditions, in the goods consumed during the act of production there is to be found a measure of the value of the goods produced.

The value of the product of the work of a horse is the quantity of food consumed during the working period. If he eats four pecks of oats a day, the value of his service can be measured by the value of the oats consumed. In the case of a man, also, if the commodities he produces do not exceed in quantity the commodities he consumes, the value of what he produces is measured by what he consumes. As a consequence of this reasoning the early economists measured the cost of labor in wheat, the staple food of the laboring class. The laborers must have enough wheat to replace the waste involved in production, and they could not get more than the amount needed to replace this waste, because of a lack of productive power, or because of rapid increase in their numbers. The value of the products of labor is thus measured by the cost of the wheat the laborers consume. The cost of the commodities is equal, therefore, to their value and seems the cause of their value.

The basis of this relation of cost to value was destroyed by Adam Smith. He showed that there was a surplus in manufactures and commerce, as well as in agriculture. Values at least may be more than the sum of costs if there is a surplus in all kinds of production. Yet he clung tenaciously to the old doctrine and tried to make the facts fit into it. He never doubts that cost is the cause of value. He wavers, however, between two opposing views regarding the nature of the cost which is the cause of value. In

many of his chapters he uses the reasoning of his predecessors without any modification, measuring cost by the wheat or other food that producers consume. This cost may be called producers' cost, because it at least tries to measure cost by the disagreeable effort or pains of producers.

A second measure of cost Smith deduces from his theory of exchange. Both of the exchanging persons are prompted by the same motive—a desire for gain. If therefore one of them demands more for his article than it cost him in labor, the other person will not exchange his product for it but will make it himself. If one class of producers ask more than their product costs, then other producers will make this article, and through the increase of supply, the value will fall to the cost of production. If the self-interest of buyers keeps the value of articles at their cost of production, a measure of the cost of any article can be found in the amount that buyers will give for it.

Reasoning like this is used by Smith in the greater part of his discussions on value and cost. He does not measure cost directly by seeking to determine the pain or effort of producers, but indirectly through what buyers will give them for their products. Trace the distribution among a group of producers of the commodities, which are received in exchange for their products and the amount of labor of each producer can be determined. Trace the distribution of the whole product of industry among those who produced it, and the value of the goods that each producer gets, will equal their cost in labor. Why? The total value of commodities equals their total cost; and if any producer asks more for his commodity than it cost him, other producers will make it themselves, instead of getting it through exchange. A bit of deductive reasoning is made to take the place of an investigation of facts.

Smith has thus two conceptions of cost which may be distinguished as producer's cost and consumer's cost. He regards the two as the same, and does not seem to be aware that consumers pay not only for the cost of labor, but also when there is a surplus in an industry they give a reward to labor. Producers will not leave one industry for another merely because the value of the product in the second is greater than the producer's cost. They will change to another industry only when the reward of labor—the difference between the cost and the value of the product—is greater in this industry than in the one from which they came. This difference between producer's cost and consumer's cost Adam Smith did not see clearly, and as a result there is a lack of harmony in the different parts of his system.

Ricardo took up the task of explaining the relation of cost to value at the point where Smith left it. He saw that Smith was wrong in assuming that total cost equals total value. The many reductions in the cost of production leave a large margin between the value of commodities and their cost. Competition among producers does not lead to lower general values, but only to an equalization of profits. Improvements in production tend to increase profits and not to lower prices. With these views of the effects of competition Ricardo was in a position to see that consumer's cost was not

the same as producer's cost. The real cost is the producer's cost, while the cost of goods to consumers is their value. He changes, therefore, the relation of cost to value, and affirms that the value of goods is in proportion to their cost. The total value of goods may be double their total cost, but if so, the value of each article is double its cost in labor.

In treating of cost, however, Ricardo falls into the same error as did Smith, measuring cost by value. He always estimates the cost of goods by their value, and not by an independent investigation. If the value of two articles is the same he argues that the cost must be the same, because of the truth of certain deductive premises, but he never seeks to verify his deduction by facts. It is remarkable that the adherents of the theory that cost regulates value should always use this theory inversely to show what the costs of commodities are from their value, and never to show what their values are from their costs.

The effect of cost, value, is thus used to determine the cause. In reality their theory does not measure value by cost, but cost by value. The exchangeable value of goods is easily ascertained, while the real cost of producers is out of reach. To find the cost of each producer, economists were forced to watch the distribution of the commodities obtained by producers in exchange for what they have produced. It is assumed by them that the share each producer gets is in proportion to his cost in labor. But who has shown by direct investigation that this is a fact?

Ricardo's services in developing the theory of value were not limited to his theory that values are always in proportion to labor, or, in other words, to cost. He was the first to see the influence of scarcity on value, and hence was compelled to make many exceptions to his general law. The most important of these exceptions relate to the value of agricultural products. The value of the products on the better land is not in proportion to their cost of production after poorer land has come into use. The growth of rent is the result of a relative scarcity of wheat and other food products. In his treatment of the theory of money Ricardo also shows that a seigniorage in the case of coins or the use of paper money in any form makes scarcity an element in the value of money, and reduces the proportion of its cost to its value. All kinds of international trade form a third class of exceptions. Foreign exchanges do not take place on the basis of labor for labor. The articles of one nation may represent double the quantity of labor contained in those which it receives from its neighbor. The element of scarcity comes in to influence every form of international trade, and destroys the relation that would otherwise exist between value and cost.

From the standpoint of Ricardo the use of fixed capital creates another exception to the general law of value. Commodities made by the use of fixed capital will not exchange in proportion to their cost in labor for commodities made by labor alone. When commodities of the first class exchange for those of the second, they are the result of less labor than are the articles of the second class. They always have a scarcity value, which forms the profit of their producer.

It is necessary to call attention to this fourth exception to his general law of value, because many recent economists have read into Ricardo the doctrine that the value of freely produced articles is equal to their cost. Ricardo, however, always says values are in proportion to cost, and never that cost is equal to value. The theory that interest is a cost, and that value is the sum of the various costs, was first stated by Senior at a later period. To Ricardo the income from fixed capital created an exception to the general law of value resulting from the relative scarcity of capital. He could not admit that the sum of costs equals the value of the product without overthrowing his theory of profits. Competition, according to his doctrine, does not lower prices; it equalizes profits. The surplus created by the division of labor and machinery remains in the hands of producers until the effects of the law of diminishing returns take it away. Double the efficiency of the labor of a nation, and higher profits or higher wages result; not lower prices. Those who claim that the sum of the costs of commodities always equals their value, in some way admit the possibility of a general lowering of values, so that the total values of the products of a nation will be less than before the efficiency of its labor was increased. If total cost is reduced by social progress, total values must also fall if they are the sum of all the costs.

It will now be apparent, I think, that Ricardo made several serious breaches in the theory of value he received from his predecessors. He cleared up the ambiguity left in the doctrine of value by Smith, and changed the statement of the doctrine so that it was logical in form and in harmony with the general economic principles which he and Smith held in common. Yet in doing this for the doctrine he was compelled to make so many important exceptions to it, that its utility in explaining the relation of value to cost was much reduced. Under the four exceptions to which I have referred the greater part of the phenomena of value were included. In fact, when money, the products of land, of fixed capital, and of international trade are excluded from the operation of the general law of value, in a modern nation, there does not remain much of the general law to follow. Scarcity has become almost as important and universal an element in values as has the quantity of labor.

It was impossible, therefore, for the theory of value to remain long in the condition that Ricardo left it. Either some step backward must be taken by the revival of the ambiguities and errors of Smith and the physiocrats, or some new doctrine must appear which would conform more fully to the industrial facts of recent times. For the forward step the general condition of the science was not yet favorable, but backward steps are always possible.

After Ricardo's death the science was taken up by men who were less logical than he and controlled more by their feelings. All parts of the science were affected by the change, but none more than the theory of value. At this time, unfortunately, the justification of interest became an important question, diverting the attention of economists from matters of

pure theory. It is to be regretted that the theory of value was not definitely settled before the significance of interest was discussed. The feeling that the latter problem excites could not but retard the solution of the theory of value, causing it to assume a form in which the taking of interest might be more easily justified by popular writers who have not yet freed themselves from the old errors of the science.

It was Senior who had the ingenuity to undo the work of Ricardo, making plausible the theory that the value of all freely produced commodities equals the cost of their production. By cost of production, however, he means the sum of labor and abstinence necessary to production. For the first time we find abstinence put with labor among the disagreeable facts of production and hence demanding a compensation. This theory forms the basis for the subsequent writers of the English school of economists, although they are not always consistent in their use of it. They usually weave into it remnants of older theories, as if half conscious that their theory of the relation of cost to value is defective.

Cairnes, however, is in some respects an exception to this statement. His analysis of the cost of production as opposed to the reward of production is admirable. He shows that cost and remuneration are the economic antitheses of each other. He thus clears the ground for a new conception of the connection between cost and value. But unfortunately the presence of side issues prevents him from seeing his way out of the old confusion of ideas. He also helped to undermine the old doctrine of value by creating another important exception to it. Previous writers considered the laborers as one class among whom there was a perfect competition. He showed the presence of non-competing groups among the laborers, the products of which did not exchange with one another according to their cost of production. In an exchange of the products of skilled labor for those of the unskilled, the first class of products will have a higher value in proportion to their cost of production than those of the second class. The presence of skilled labor affects values as does foreign trade or the use of fixed capital.

The work of Cairnes opened the way to a new class of exceptions to the law of value. While previous writers had often called attention to the differences in men and to the lack of free competition among them, he is the first to use these differences as the basis of deductive reasoning. The axioms that all men have the same natural abilities, and that differences in men are not born with them but are the result of political and social institutions, were too deeply rooted in the minds of the early English economists to allow them to emphasize the subjective differences in men. So impressed were they by the influences of physical differences, that those of a subjective nature remained in the background, or, at best, came into notice as mere empirical generalizations.

As soon, however, as Cairnes pointed out the presence of non-competing groups among the laboring classes, it became evident that there was a graded scale of intelligence from the lowest to the highest members of society. These differences in natural and acquired abilities cause each nation to be

divided into many separate classes with distinct economic functions among whom competition is imperfect. When these differences in men are recognized, it is an easy step to conclude that the normal value of a freely produced commodity does not depend on the average cost of the whole supply, but on the cost of that part of it which is produced at the greatest disadvantage. If each producer has his own cost of production, because of subjective differences which cannot be eradicated, competition cannot bring about that perfect equality in the cost of production for different producers that the early economists supposed. The law of value in all production becomes similar to the law determining the value of food products, regarding which it has long been recognized that the cost of that part produced at the greatest disadvantage fixes the price of all the supply of food.

This change in the conception of the cost of production was greatly aided by the gradual separation of the capitalists and the undertakers into distinct classes, and the increasing control that undertakers obtain in all great industrial enterprises. When each large factory has its own organization, in which the intelligence of its undertaker has a dominant place, differences in the cost of production at the various factories producing the same article are too apparent to be overlooked.

F. A. Walker was the first economist to see clearly the importance of these facts, and to recast the theory of political economy, so that it would conform to present industrial conditions. He makes four factors in production and distribution by putting the capitalists and undertakers into separate classes with distinct industrial functions. The share in distribution secured by the capitalists is interest, and its amount depends upon the law of interest. The share of the undertakers is profit, and its amount depends upon differences in the cost of production of different producers, just as the amount of rent depends upon differences in land. There are no-profit producers who fix the price of commodities as well as no-rent lands which fix the price of food. Neither rent nor profits enter into the cost of production. The price of all articles is determined solely by the wages and interest paid by those who produce under the most disadvantageous circumstances. The effect of this law of profits is to make the value of all commodities except those produced at the greatest cost, exceptions to the Ricardian law of the relation of cost to value. In fact, the law is completely broken down, since every *class* of articles is excluded from its operation.

To show this fact more clearly it may be well to restate these exceptions to the law that articles which have the same cost of production must have the same value.

1st. Products of foreign countries.

2d. Money.

3d. Agricultural products.

4th. Products made with the aid of fixed capital.

5th. Products having a joint cost of production. [See Mill, Book III, Chapter 16.]

6th. Products of skilled labor.

7th. Products produced on a large scale requiring a separate class of undertakers.

To see the influence of this list of exceptions upon the development of the theory of value, it is necessary to draw a sharp distinction between the theory of Ricardo and that newer theory which is best stated by Walker. They are two distinct theories, although often confused with one another, owing to the use of the same words to express different ideas. Ricardo supposes a society of laborers with the same efficiency and capitalists with the same intelligence working with the same quantities of capital under the same industrial conditions. Walker has in mind a society where laborers differ in efficiency and the undertakers differ in intelligence, while the quantity of capital and the general conditions under which they produce also differs. He also regards abstinence as a cost, while Ricardo does not. The conclusion of Ricardo is that the value of commodities is in *proportion* to the labor expended in their production, while Walker asserts that the value of any commodity is equal to the *sum* of the efforts and abstinences needed to produce it under the least favorable conditions. Ricardo thinks the cost of production is the average cost of the whole supply; Walker makes it the cost of the most expensive part of the supply.

The difference in these theories can best be illustrated in the terminology of Mill. He divides all commodities into three classes, those absolutely limited in supply, those which may be had in unlimited quantity at a given cost of production, and those which may be had in unlimited quantities, but at an increasing cost of production. The law of the second class is that value is in proportion to the quantity of labor; the law of the third class is that value equals the cost of production under the most unfavorable circumstances. Ricardo declares the second law to be the general law of values, and makes the others special laws. Walker reduces the number of laws to two, by dropping out the second and making the third law of Mill the general law of value.

These two theories of value are based on different industrial conditions, and from them different conclusions are drawn. They cannot be reconciled, nor can any consistent thinker consciously hold both of them. The growing importance of differences in men, and in the conditions under which production is carried on, has forced economists to abandon the position of Ricardo and to accept the newer theory of value developed by Senior and Walker.

Yet this theory of value, to which the adherents of the classical school have been forced, loses sight of the central fact from which the originators of the doctrine started out. There are no means of measuring marginal costs by an independent investigation. They can be determined only by the value of the goods produced. While Walker adheres to the theory that the cost of commodities determines their value, he has no method of measuring costs except through the value of the goods produced.

The early economists desired a definite, fixed measure of the value of commodities, and thought they had found it in their cost. So long as cost could be measured objectively by the quantity of goods consumed by pro-

ducers during the act of production, the value of commodities had a definite measure. Adam Smith, however, was the last economist who sought to find in the wheat or other food consumed in production a measure of the value of goods produced. This physical conception of the relation of cost and value, however, lies at the basis of all subsequent endeavors to make cost the cause of value. The facts upon which Smith based his doctrine were soon disproved. But a clear, vivid idea, once impressed upon the mind, will not die by taking away the ground out of which it sprang. The connection between cost and value having been seen, and a theory formed, subsequent writers kept trying to prove the theory by new facts as often as the old arguments lost their validity as a result of the appearance of new economic phenomena in a more advanced industrial society. Theories have too much vitality to be stoned to death by facts, and in this case, as in many others, only the rise of a new theory will effect the displacement of the old.

VII

The Dynamic Economy

The several economies which have been described are but phases of one economy. They all presuppose the same characteristics of man and nature, and emphasize the dependence of the former on the latter. The ideas upon which they are based are not inductions from the particular environment of each economist, but are the inherited ideas of the race. The primitive conditions under which men lived have made so deep an impression on their minds that the old ideas cannot be eradicated, except by a process of evolution. Particular writers rejected this or that primitive idea and put in its place one founded on modern experience; yet the method of thinking in which they were reared was so strong, that they soon gave up the struggle, and made their discoveries mere exceptions to the accepted system of thought.

The economy of the physiocrats is not that of the French people in their time, nor is the economy of Adam Smith and Ricardo that of the English people. They are both primarily economies of the ancient world. At the time of these writers modern history could scarcely be said to exist, and had little influence. Every one read ancient histories, and the industrial condition of the ancient world was better understood than that of the modern. The economists, therefore, are not to be blamed for taking the current ideas and building their systems upon them.

That nature is the source of the surplus of society is no discovery of the physiocrats, nor did Adam Smith originate the doctrine that labor is the cause of value. So also the doctrines that men are born equal, that poverty is the result of governmental oppression, and that population increases more rapidly than subsistence are as old as society. They simply reflect the reasoning of primitive men, dominated by nature, and robbed by their rulers. The law of diminishing returns is but a particular form of the inherited concept of the niggardliness of nature. Ricardo did not try to prove it. He

found it already accepted by the public, just as he found his iron law of wages or as Smith found the doctrine that all men have inherited the same mental faculties. Mill was the first to try to prove the law of diminishing returns, and then only in consequence of the attack of Carey.

The general features of this economy are static. The environment has so strong an influence over men that their subjective qualities can be neglected. Nature is so niggard and its surplus so small that no radical change in social relations is possible. I do not need to expand the system of thought resulting from this objective basis, as it has already been done in its proper place. It is, however, but just to state that no economist was an advocate of static conditions. In some particular, he breaks away from inherited ideas, and thus creates an exception upon which he bases his hope of progress. A purely static economy is only an ideal, but one of great use when different economies must be contrasted.

When a reaction set in against the ideas of the school of Adam Smith, a new standpoint from which to view social affairs was introduced by the German economists. They saw that society, and not the individual, was the center of economic activity; and that productive power depends more largely upon the organization of society than upon the material environment. They begin with an investigation of man and society, and not with nature. The primary premises of the science thus became subjective since the industrial activities and the consumption of man are directed by their wants, and not by the obstacles that nature interposes between each want and its gratification.

Out of these subjective premises largely through the efforts of the Austrian economists a deductive economy has been formed. These economists have shown the importance of the theory of marginal utility and created a theory of value based upon it. Yet a mere subjective economy cannot displace the static economy of the classical writers because many of its premises are objective and relate to the environment. The theory of cost must be put on a modern basis as well as the theory of value.

Nature will always seem niggard until it is shown that the economic environment changes with the changes in men. Each new class of men looks upon the world in a different way, and the environment they find depends upon their mental characteristics. The objective laws of a given society are not simply the laws of nature; they are laws derived from the particular combination of natural forces of which the society makes use.

Each modification of the environment, moreover, reacts upon men through their consumption. Every reduction of cost creates another order in which men consume commodities.[1] A new standard of life is formed through which the feelings and mental characteristics of men are changed.

In this way a complement of forces is brought into activity through which social progress becomes continuous. Changes in the race psychology—for there is no better term for subjective qualities, desires and feelings created in men by society—give to men a new economic environment. This new environment modifies the standard of life through changes in consumption,

[1] See *Consumption of Wealth*, Sec. 2.

and then the new standard acts upon the race psychology and creates new motives in production. This complete economy I would call a dynamic economy, because it keeps up a series of progressive movements in society through the reactions between the subjective and objective worlds. Progress ceases to be a series of waves that spend their force in vain upon the unyielding barriers of nature, and becomes a steady, onward movement that cannot find an equilibrium.

VIII

The Influence of the Consumption of Wealth on the Value of Commodities

Mill has claimed that the laws of consumption are not a part of political economy because they are simply the laws of human enjoyment. Jevons, in reply, says that it is obvious that the science of economics rests upon the laws of human enjoyment, and hence, if no other science has developed these laws, they must be investigated by economists. Both assume that the laws of consumption depend upon purely subjective facts, and can be determined by introspection or by some simple induction from general experience. With such views it is not remarkable that Mill excluded consumption from economic discussion, or that Jevons based his theory of economics on a very crude theory of consumption.

As the Austrian economists have so clearly shown, the laws of value rest on purely subjective facts, while the laws of consumption have their basis partly in subjective facts and partly in objective relations. In investigating the theory of value, the utilities of the various commodities are accepted as fixed quantities; but a study of the laws of consumption is an investigation of the causes of the utilities of these commodities, and the conditions under which they change. In a society at a given time assume that the commodities A, B, C, D, E are valued in the order they stand; the theory of consumption must explain why they stand, at another time, in the order B, A, E, C, D. Or, if the commodity A was valued at 10 units at one period, why is it now valued at 7 units?

If these are the problems for a theory of consumption to solve it is plain that simple inductions and popular ideas are deceptive. The commonly accepted theory assumes that there are a few necessities—food, clothing and shelter, which have a high utility, that the comforts of life have a lower utility, and that luxuries have a still less utility. This doctrine leads those who accept it into error, because of two meanings of the word "utility." Absolute utility is the satisfaction of mere living. Positive utilities refer not to life but to the content of life; they are the sum of satisfaction that can be added to bare living. Negative utilities are the pains that detract from the pleasure of living. A man may have the absolute utility of life, yet he may suffer all kinds of pain and be on the point of suicide. Every

life contains the absolute utility of living plus certain positive utilities or pleasures minus certain negative utilities or pains.

The theory of consumption is not concerned with absolute utilities. They cannot be increased, diminished or compared. Air has an absolute utility, yet it gives little or no positive utility. Food has an absolute utility, and usually a positive utility as well. While food adds to the pleasure of living, air merely sustains life. Every group of goods from which choice can be made must contain all the necessaries of life. We compare groups of this character, choosing that group from which we can get the greatest sum of pleasure.

It is not true, therefore, that the groups containing the absolute utilities or necessaries of life are those that give the largest sum of pleasure. They may be composed of articles which give little pleasure, yet they must be chosen to preserve life. A commodity necessary to life is an absolute utility so long as there is no substitute for it. But when the increase of productive power allows a choice between it and some other commodity supplying the same want, both have their utility measured by the pleasure they afford. Their values then sink to the positive utility of their final increments. When used without a qualifying word, I shall use the word "utility" in the sense of positive utility.

From this general description of the scope and content of the theory of consumption, it is evident that the task before us is difficult and intricate. It is, moreover, highly deductive from the start, and requires a careful analysis of the causes which influence our subjective feelings and the objective environment. In this connection I shall not try to develop a complete theory, but shall content myself with giving in outline, several of the prominent laws of that theory.

First. *The Law of Necessity.* To the content of this law I have already referred. Life is precious, and we are willing to sacrifice other ends to preserve it. Every group of goods forming the total consumption of a person must contain all the elements needed to sustain life and to secure present bodily necessities. There must be enough food to satisfy hunger with enough clothing and shelter to afford protection from the variations of climate. No matter how great a sum of satisfaction is sacrificed, these absolute utilities must be secured. The misery and poverty that most persons endure in primitive societies is the result of this law of necessity, since it compels them to make up their consumption from a group of articles from which they get little satisfaction.

Second. *The Law of Variety.* As soon as the necessaries of life are secure, a new law of consumption asserts itself. An increasing consumption of any one commodity reduces the utility of each increment until a point of satiety is reached. To avoid the reduction of the marginal utility of a commodity, other commodities satisfying the same want are substituted in its place. The change from one commodity to another also revives and increases the satisfaction of consumption, and in this way an increase in the

number of commodities consumed is accompanied by some increase in the marginal utility of each commodity.

Third. *The Law of Harmony.* The utility of a commodity depends on the group of commodities with which it is consumed. The consumption of some articles is harmonious, and hence the sum of their utilities when they are consumed together is greater than the sum would be if they were consumed apart. The utility of butter and bread is much greater than the sum of the utilities which would result from their separate use. Salt, by itself, is disagreeable; yet, as an ingredient with many kinds of food, it adds greatly to their enjoyment. On the other hand, many commodities are inharmonious. They cannot be consumed together without losing a part, at least, of the sum of utilities which their separate consumption would give. In this way commodities are joined together in natural groups, and each person tries to get a harmonious combination, eliminating from his consumption as many of the discordant elements as possible. From this law it follows that the total utility of a group of commodities will be greater than the sum of the separate utilities, if the combination is harmonious, and less, if it is discordant.

Fourth. *The Law of Cost.* If men lived in a world where they could supply their wants without work, the order of their consumption would be vastly different from the present order. All articles whose cost exceeds their utility, are now cut out of the consumption of each individual. Because of their cost a large part of the commodities produced never, or at least, but rarely, comes into the consumption of the average man. Articles that are consumed are not estimated according to their total utility, but only by the surplus of utility above cost.

Fifth. *The Law of Grouping.* Under the conditions in which primitive races live, but few articles give intense pleasure in consumption. The consumer strives, therefore, to get into his diet as much as possible of these pleasure-giving commodities. He will limit his use of other articles to the amount needed to supply the absolute utilities not secured by the first class of commodities. Suppose wheat to be the pleasure-giving article, and the other articles to be cabbage, turnips and beets, articles that support life, but give little or no pleasure; he will eat as much bread as he can get, and then satiate himself with cabbage and other vegetables. To our early ancestors, liquor was of immense importance, because it was the pleasure-giving part of the food, and the other articles of the diet were selected because they harmonized with it. Tobacco also has a like influence on its devotees. They modify their diet so as to make it harmonize with the pleasures derived from tobacco. As these leading pleasures are usually discordant, each person must select a few of them which harmonize in the main, grouping about them other articles with much absolute, but with little positive utility.

Sixth. *The Law of Negative Utility.* Certain absolute utilities are at the same time negative utilities. The medicine we take is usually unpleasant. It is an absolute utility, and at the same time is a negative utility because it reduces the sum of positive happiness. Many articles which give pleas-

ure for the moment, or at least no pain, later are the source of suffering. A man eats pie and suffers from indigestion; he dances and takes cold; he smokes and becomes sleepless. Negative utilities are thus the painful results which follow from careless actions or from actions prompted by present necessities. Usually these negative utilities are the effects of past acts, but their presence causes the consumer to deviate widely from his natural choice in consumption. The bad effect of some past consumption causes him to choose first some article which will soothe present suffering. If the diet of a person is of such a nature that depressed feeling or pain follows eating, he craves for liquor, tobacco or other stimulants. They give a present relief from suffering only to become in turn the cause of future pain. Negative utilities thus disarrange the consumption of most persons, greatly reducing the sum of positive utilities.

The combined influence of these laws of consumption causes the line of progress along which a society moves away from primitive conditions, to be different from what it would be under more natural conditions, where articles can be chosen according to the pleasure they afford. It is usually assumed that the primitive man is the natural man, yet if we view his environment more closely, it will be seen that his actions are most unnatural. He cannot gratify the intense pleasures of his economic environment, because the production of absolute utilities demands his attention. The great cost of many articles reduces the variety of his consumption and compels him to insert articles with a negative utility. The few articles which he must consume do not harmonize with one another, and thus the sum of happiness derived from them is greatly reduced.

A primitive society is thus organized under conditions where the sum of positive utilities is little in excess of zero. Its progress is, therefore, not from intense to less intense pleasures, but in the opposite direction. Every increase of productive power is used to increase not the quantity of the articles already consumed, but their variety. Articles which have a negative utility are omitted, and those that are not in harmony with the consumption as a whole are ejected and in their place other articles are put, which add to, instead of detracting from, the sum of happiness. The progress of society consists, not in increasing the consumption of the articles in use, but in substituting new articles with a large sum of pleasure for articles out of harmony with the remaining commodities consumed. The progress is dynamic, and not static, because the articles consumed change in character and quality, instead of merely increasing in quantity. The primary law of social progress therefore is that *society progresses from a simple, costly* [1] *and inharmonious consumption to a varied, cheap and harmonious consumption.*

Many deductions can be made from these premises, but those relating to the theory of value at present must occupy our attention. The theory that value depends upon marginal utility has been based upon two assumptions: that we satisfy our most intense desires first, and that additional increments of any commodity give the consumer less pleasure than the first

[1] In the quantities of labor required to produce them.

increments. These premises, however, are strictly true only when consumption is static. Change the environment of a society, or increase the productive power of its members, and it may be possible for them to bring into their consumption articles which will satisfy desires more intense than those that were satisfied in the first social state.

It has been assumed too often that we always gratify our most intense desires first, and that the increase of productive power gives us more commodities of like kind and character or other commodities which give less pleasure in consumption. From these premises it would follow that additional quantities of articles for consumption are sources of less pleasure than the first increments, and hence that the final degree of utility of each commodity is gradually reduced with every increase of the quantity of goods due to the increase of productive power. This conclusion is rendered invalid by a confusion of absolute with positive utilities. If a choice must be made between absolute and positive utilities, the former will be chosen; and individuals, when isolated from society, must often make such a choice. But it is a mistake to take the actions of isolated persons as a standard by which to judge the actions of individuals under normal social conditions.

In primitive societies, from a lack of productive power, men are compelled to choose absolute utilities, the greater part of which give but little pleasure. And of the few articles which do give pleasure, so many increments are already consumed that little or no additional pleasure can be derived from an increase in their quantity. The result is that in primitive societies the positive utility of the marginal increments of the commodities consumed is low—almost zero. In saying this I refer to normal conditions. A society, because of famine, war or other disasters, may be temporarily placed under conditions which raise the marginal values of commodities; but the return of peace and plenty will cause a return to the former low level.

Every increase in the variety of consumption due to social progress causes society to transfer its labor from absolute utilities, which give little pleasure, to new utilities which will sustain life and give more pleasure in consumption. At the same time articles not in harmony with the consumption as a whole are rejected, and negative utilities are displaced by those whose pleasures are positive. The increase of productive power due to a better utilization and economy of natural forces acts in harmony with these changes in consumption. Productive powers are directed by the motives which control consumption and the spare time arising from each increase of productive power is used to produce new articles with a higher marginal utility, instead of additional quantities of articles now in use, the marginal utilities of which are not much above zero.

It often happens that these new articles are in name the same as the articles already in use, but if they satisfy new wants in addition to those which the former articles satisfied, the marginal utility may rise. A pair of coarse shoes keeps from their possessor the pain of going barefooted.

A pair of well-fitting, fine shoes prevents these pains, and at the same time is a source of positive pleasure. A second coat may have a higher marginal utility than the first if the first is a more absolute utility which, while protecting the body, is often a source of irritation because of its cut and color. A working and a dress suit both protect their owner, but the latter suit often possesses the greater positive utility, hence the marginal utility of clothing may be higher to a man possessing two suits than to him who has but one suit.

The lack of time forces the members of a progressive society to leave their least intense wants unsatisfied; and any increase in the variety of their wants will cause wants of greater intensity to remain unsatisfied. Each individual in a society has a marginal increment of consumption, that is, an increment from which, under normal conditions, he gets the least surplus of pleasure. If the marginal increment of any commodity sinks below the marginal increment of consumption, less labor will be employed in its production and more in that of other commodities. An equilibrium will thus be restored, the marginal increments of all commodities having the same utility as the marginal increment of consumption. When the marginal increment of consumption equals two units, the marginal utility of each commodity will tend to be two units. The normal effect of an increase in the variety of consumption will be to transfer the marginal laborers in the old occupations to new occupations supplying more intense wants, and with every change of this character, the marginal increment of consumption will have a greater utility than before.

There is a margin of consumption as well as of production. The least intense wants remain unsatisfied just as the least productive lands remain unused. The margin of consumption is high if the marginal increment of consumption satisfies an intense want. Whatever increases the variety of consumption raises the margin of consumption, while whatever increases the quantity of goods without increasing their variety lowers this margin.

To illustrate the effect which changes in the margin of consumption have on subjective values, I will trace these changes in an isolated society through several stages of its development. We will suppose that in the first stage, besides certain absolute utilities, potatoes form the food and wool the clothing of the people. In the second stage, wheat is added to the food supply; in the third, meat comes into use; and in the fourth, cotton supplements wool for clothing.

I will use the following table to illustrate the change in subjective values which would result from the successive introduction of these articles into the consumption of the average man in this society. The Roman figures refer to the stages of social progress, the letters to the different articles of consumption, while the Arabic figures indicate the intensity of the pleasure derived from each increment of consumption, the first increment being represented by the highest figure.

A—Potatoes.
B—Woolens.
C—Wheat.
D—Meat.
E—Cotton.

	I.		II.			III.				IV.				
	A	B	A	B	C	A	B	C	D	A	B	C	D	E
	6	6							8					
	5	5	6	6	6				7				8	
	4	4	5	5	5	6	6		6			7	7	7
	3	3	4	4	4	5	5	5	5	6	6	6	6	6
	2	2	3	3	3	4	4	4	4	5	5	5	5	5
	1	1	2	2	2	3	3	3	3	4	4	4	4	4
Total number of Increments. . . .	12		14			17				19				
Total number of units of pleasure	42		54			81				104				
Total value.	12		28			51				76				

In the first stage let us assume that 6 increments, each of potatoes and wool, give a surplus of pleasure, each increment being the result of a half hour's work. Then the man would cease working at the end of 6 hours, and have, as a result of his day's work, 42 units of pleasure. In the second stage, where wheat becomes a food, he will work longer, say 7 hours, because of the additional pleasure obtained from the wheat. To make the marginal increments of potatoes and wool have the same value as the marginal increments of wheat, he will cease to produce the last increments of potatoes and wool, and produce 4 increments of wheat. In this way the margin of consumption will be raised, while the marginal increment of consumption will be two units instead of one. In the third stage, where meat is a food, the man will work still longer, 8½ hours, and the marginal increment of consumption will be valued at 3 units. In the fourth stage, cotton is used, and we will further assume that the utility of wheat is increased two units by the use of yeast in raising bread. The length of the day's work will be increased by say 9½ hours, and the margin of consumption will be raised from 3 to 4 units.

It will be noticed that each new unit is partly supplied by additional labor, and partly by a transfer of labor from the marginal increments of the articles previously consumed to the new article. Notice further the changes in total utility and total value. In the first stage, the total utility equals 42 units, while the 12 increments of consumption, having a marginal utility of one unit, are valued at 12 units. In the second stage, the 14 increments have a total utility of 54 units, a marginal utility of two units, and a total value of 28 units. The 17 increments of the third stage have a total utility of 81 units, a marginal utility of three units, and a total value of 51 units. In the fourth stage, total utility rises to 104 units, the marginal utility to four units, while the total value is increased to 76 units.

The total utility and total value both increase with the growth in the variety of consumption, but the latter increases more rapidly than the former, because of the rise in the margin of consumption. These facts enable us to formulate the general law of subjective values in so far as it depends upon the consumption of wealth. In a dynamic society, subjective values tend to rise because of the rise in value of the marginal increment of consumption. Each successive stage in the development of a society causes the total value of commodities to approach more nearly to their total utility. Fully to appreciate the meaning of this law, it should be kept in mind that the standpoint is that of the consumer. Consumers' values relate to houses, clothing, dinners and other finished products. They are the values of the units of consumption—the groups of complementary goods from which consumers get their pleasure. Believing that cost determines value, the classical economists naturally began their investigations of value with producers. Those, however, who make value depend on the subjective conditions in consumers must, to be consistent, begin with them.

IX

The Law of Cost

To an isolated man cost is what is given up to get a return from nature, and modern men have not yet outgrown this concept of production acquired when men lived in isolation. The share in distribution which they receive is justified by reference to the conditions of a primitive society, where subjective values are no greater than costs. The landlord calls attention to the difficulties of bringing land into cultivation; the capitalists refer to those of primitive men in acquiring capital and in abstaining from its consumption; the employing classes, who enjoy profits, lay stress upon the sacrifices needed to acquire intelligence and skill, while the laborers emphasize those primitive means of production involving great muscular exertion and fatigue. Each class has its own way of showing that its costs equal the values of the goods it produces, and if the evidence of all is to be taken, the labor theory of production is valid.

With the progress of society this measure of cost becomes defective. The land has been brought into cultivation, habits of saving have been formed and capital accumulated, intelligence is for the most part inherited and not acquired, while labor becomes so mechanical that its cost is greatly reduced. We now form a social concept of production, conceiving of a united society bartering with nature to get the largest sum of utilities for a given expenditure of effort. If we estimate the cost to society subjectively, it is the sum of pains which producers must endure while engaged in production. If estimated objectively, it is the quantity of goods which must be given to these producers to restore them to the condition they were in when production began. The cost of wheat is increased when more laborers must be employed in its production, or when the labor of

producing wheat becomes more irksome. To society it is a matter of indifference whether one of two laborers, because of better land, produces 200 bushels while the second produces 100 bushels, or if each of them produces 150 bushels. There are a certain number of workmen, and they are distributed among the various industries in a way which will cause the keenest wants of society to be gratified. The cost of wheat, of iron or of any other commodity useful to society, is determined by the number of men engaged in its production. The cost of capital, of skill, of education, and of other necessary aids to production must be estimated in the same way. A given proportion of the labor of society must be directed into these channels, and the cost to society is the sum of the efforts of those engaged in these occupations.

The gross return which a society has to enjoy is not wholly the result of the labor of its members. The natural powers of land, water, wind and similar forces assist men in production, reducing the cost. Besides these natural forces, the members of a society at a given time are aided by the results of past civilization. The labor of the past has added much to the original qualities of the land which society occupies, and each generation finds it in a better condition than did its predecessor. Great additions have been made to the productive qualities of the laborers themselves, and there is also an increasing stock of knowledge which descends from one age to another. With but little cost we can acquire the skill and knowledge of our fathers and make use of the forces they set in motion.

But these inherited qualities increasing the productive capacity of man are not the only ways in which man is aided by past civilization. As a consumer also, he has become better adjusted to his environment. The wants of the primitive man were few and simple, and all his pleasures being physical and exclusive, there was a demand for consuming only those articles of which the soil could produce but small quantities. When the results of civilization have modified the original appetites and passions, wants become more varied and less exclusive. Man gradually conforms to the external conditions about him, and obtains from nature more liberal rewards for his efforts. The costs of commodities become less as men adjust themselves more fully to nature.

Aside from labor, there are then three elements which enter in to determine the gross produce of society—natural forces, inherited industrial qualities, and consumption with its habits, customs, and feelings. From the social point of view, these three aids to production are never elements of cost. Nature always works gratuitously for society; and although industrial qualities have been acquired by our ancestors at a large cost, we receive them as a free inheritance. Our pleasures and habits have also become modified to such an extent that we naturally choose new forms of consumption which harmonize more fully with our present environment.

It is a mistake, therefore, to assume that the whole produce of industry is due to the efforts of individuals, and that society, after replacing its producers in the position they were before production began, has little or

no surplus of which to dispose. In this assumption the fact is overlooked that society gives to its members all the produce of industry, though the goods which are the equivalents of the real costs may be but a small part of what is received.

Before the formation of society isolated individuals adjust themselves to their immediate environment and get what surplus they can by a direct utilization of natural forces. The growth of social forces and ideas converts these isolated producers into an organized society. Individuals no longer adjust themselves to nature but to the society of which they are a part. Instead of supplying their own wants the individuals work for society, receiving from society the goods they consume. To utilize the improvements in production in the progress of society new combinations of laborers are created; the instruments of production are changed from one form to another, while land is devoted to new uses, bringing about greater returns to labor. While these changes reduce the cost of production to society, the surplus which is created must be largely given to the men whose occupations are changed, or to the owners of land or other productive instruments for which society has found new uses. Society cannot get men to work for it unless it gives them a greater surplus than they could obtain working by themselves, or by working in some other combination than the one in which society wishes them to work.

The surplus of industry is divided among the members of society according to the needs of society for their land, capital, intelligence or labor. Whoever has the greatest variety of opportunities to use his instruments or services gets the largest share of the surplus. Every producer in an advanced society has his costs repaid to him and gets a share in the surplus. Therefore, we cannot estimate the costs by what he receives in exchange for his products, since what the individual receives comes partly from the fund set aside by society to repay costs and partly from the surplus due to the aid of nature or of social progress.

These illustrations are sufficient to show the difference between the standpoint of the individual and that of society in measuring cost, and the need of a full investigation of the causes which allow individuals to convert the surplus of industry into cost for other members.

There is no need now for an examination of the source of rent and profits. The labors of Ricardo and Walker have made it clear that they are not parts of the cost of production, but are drawn directly from the surplus of production. Interest, however, is a subject of controversy, and to it our attention must first be directed.

It is claimed by Senior, as well as by many other economists, that interest is one of the costs of production, and that the sacrifice of the capitalist is of the same nature as the sacrifice of the laborer. The one endures the pains of working while the other endures the pains of abstinence. This doctrine, however, does not state fairly the psychology of exchange and production. It is, of course, painful to abstain from the consumption of food or of other pleasure-giving commodities. To go without bread when

hungry, or without clothing when cold, are acts of the same disagreeable nature as those needed to produce food or clothing, and when such acts are necessary for the accumulation of capital they must be classed among the costs of production.

But the ordinary forms of abstinence in a civilized society are not of this character. They are merely abstinence from one form of wealth to get another which the possessor regards as more valuable. While it is painful to abstain from eating bread and remain hungry, it may be a pleasurable act to go without bread to get meat. To lose a horse without any compensation is painful, but to part with him to get a house would not cause any regrets. Would the owner of the horse reason correctly if he were to claim that his horse cost him 80 units of pain, and that pain of losing the horse by death would be 90 units, therefore, the cost of the house he receives in exchange for the horse is 170 units of pain? Certainly not. We do not feel any pain in parting with an article if we get in exchange for it another article which we value more highly. The sum of our satisfactions is increased without any addition to the sum of our pains.

If we look at the act of saving from a social instead of an individual standpoint, it is easy to see that saving decreases the sum of pain and increases the sum of pleasure. The society that accumulates large quantities of capital has more commodities to enjoy than has a society with less capital. And if other conditions are the same, the first society has less pain to suffer in producing a given quantity of goods: the members need not work as long nor as hard as those who live in the second society.

Again take a number of isolated producers, each of whom supplies his own wants. Each devotes ten months of the year to procuring his present goods—food, clothing, shelter and the like, and two months to making his tools and other future goods. Suppose these isolated producers join together in one society. They will not now work ten months of the year producing present goods, and but two months producing future goods. The advantage of coöperation will enable them to supply their present wants of eight months much better than they formerly could in ten months. A larger portion of all the laborers will now be engaged in making future goods, and the cost of producing them will be reduced.

The members of this society have not abstained from consuming any of the present goods. On the contrary, they have more present goods than ever before, and also a larger quantity of future goods. In each item the cost of production has been reduced. There is, therefore, no extra cost for any one to bear. Yet in this society where there has been no increase of cost there will be an increase of interest. There are more future goods, and these future goods are not to be valued as highly, unit for unit, as are present goods.[1] Ten days' work in a plow will not exchange for ten days' work in bread, and the difference in their values will be interest. It is a part of the extra gain coming from a more complete conformity to condi-

[1] See Böhm-Bawerk, *Positive Theory of Capital,* and the writer's "Fundamental Idea of Capital," *Quarterly Journal of Economics,* Jan., 1889.

tions of production, and not a compensation for an increase of pain due to a delay in consumption.

If interest is a cost and not a surplus above cost, then rent is also a cost and not a surplus. Suppose a man owns a farm and a house each worth $5,000, the income from each amounting to $300. If it is said that this man endures a sacrifice equal to $300 because he does not consume the capital in the house, he then endures a like sacrifice because he does not consume the capital he invested in the farm. Neither the farm nor the house are consumable goods, but they can easily be changed into other forms of capital which satisfy present desires. The temptation to indulge in costly luxuries is equally great to the landlord and to the capitalist; and if the latter has on this account a cost equal to his income, the former is in no better condition.

The fact is that while each may desire to spend more than his income, neither obtains any additional return because of his temptation. The landlord secures his income because of a difference in the fertility of soils, and the capitalist because of a difference in the value of present and future goods of like quality and character. No matter how strong the desire for present pleasures may be, if the desire for future pleasures is nearly as great, these men will accumulate capital and derive an income from interest.

A vivid mental picture of future wants creates a present pleasure in having these wants provided for. Whenever this pleasure is greater than the disagreeable results of delaying consumption, capital may be accumulated. Whether it will be accumulated depends upon the difference to the individual in the value of present and future pleasures. It is an estimation of a present surplus against a future surplus. To ask a man to go without interest is like asking him to take a dinner of bread and potatoes when he prefers meat. Neither act causes any pain, but both involve a loss of present pleasure. Cost is the opposite of pleasure and not the delay of pleasure. Interest, to the buyer of commodities made with the aid of capital, is a cost, but it is not a cost to society. To the latter it is a surplus—one of the elements which make up the difference between the total value of all commodities and their total cost.

To bring out clearly the law of cost and the relation of total cost to total utility, the principles I have been using must be applied to the measurement of the sacrifices of the laboring classes. Are the wages of workmen at the margin of production no more than are needed to replace the goods consumed in production, or have they also a share of the surplus?

The reasoning of those economists is deductive who believe that the return of the laborers at the margin of production just equals this cost in labor. The major premise is that men will continue working as long as they get a surplus of pleasure. With this premise it is easy to show that the last effort of production is the effort with the least possible surplus of pleasure, because, if additional efforts would yield a surplus of pleasure, production would have continued.

The argument for the doctrine in question is apparently sound; yet I

doubt if its advocates have been conscious of the important limitations to which their major premise must be subjected. The premise in the first place assumes that the physical environment of the society in question does not afford its members unlimited opportunities to work with a large surplus. The last portion of each commodity produced is usually represented to be the result of the efforts of some individual working at the margin of employment, where the return which nature gives to labor is so small that there can be no surplus in production.

The presence of better opportunities for labor does not prove that the pain of the marginal production is less than the pleasure derived from it. These better opportunities, however, are the condition of a possible surplus in the final act of production. A man on a fertile farm, paying no rent, may work so long that the pain of working is increased enough to equal the return obtained from the marginal produce; yet whether he will work so long depends upon his social environment rather than upon himself. If he enjoys any pleasure not the result of his economic efforts, he will cease working while his labor gives him a surplus of pleasure. A man will leave a fertile field before the labor is wearisome, if he enjoys hunting, fishing, riding, or even if he loves to gossip in the village grocery.

It is wrong to say that a man will work as long as the pleasure derived from it exceeds the pain connected with it. He works not merely for a surplus, but for the greatest surplus of pleasure. He will deviate from one kind of labor to another only when the second offers a greater surplus than the first was able to give. All kinds of non-economic pleasures, from religious duties to athletic sports, cut down the hours of labor and allow the worker to get a considerable surplus from this last act of production.

In primitive societies, the surplus at a margin of production is largely the result of non-economic causes; but in the more advanced societies, where the production is efficient and consumption is varied, economic causes give a surplus to the last increment of production. Every increase of productive power lengthens the time during which a man can work and have a surplus; but with every increase in the quantity produced, more time is needed to consume it. The time needed to consume goods cuts in on the time which might be used to produce them, preventing the day's work from being prolonged until the effort of production equals the pleasure of consumption.

Let us assume that a man occupies eight hours in sleep. Sixteen hours are thus left for work and leisure, or for production and consumption. If the man works after supplying the necessities of life the return must be high enough to pay for the pain of production and the pleasure in consumption which he loses by spending his time in work. How much pleasure he loses will depend upon the number of opportunities he has for work and upon the surplus he can get from them. If he can get a surplus from twenty articles, each of which requires an hour's time to produce, at least four of them could not be produced for lack of time. Suppose it took four hours to consume the produce of the first twelve hours' work, then but twelve

of these articles could be produced, the twelfth article being at the margin of production. The value of this twelfth article cannot be less than the effort of the twelfth hour's work plus the surplus he would have derived from the thirteenth article. If the twelfth article is cutlery and the thirteenth is glass-ware, the value of the cutlery must be equal to the pain of making the cutlery plus the surplus that could be obtained by making glass-ware. If the value of the cutlery equaled only the pain of making it, the man would make the glass-ware, from which he could get a surplus.

The principle that I desire to illustrate is now accepted in discussions relating to rent. If the marginal land used for gardening will yield a rent for wheat, the value of the marginal produce of garden products must equal the cost of the labor employed plus the rent of the land when used for wheat. And if this land is afterwards used for building purposes, the rent which gardeners would pay for the land must be added to the other expenses which the occupiers of these houses must pay.

The marginal laborer in any society must be given a "rent" above his cost in labor as soon as all the wants of the society cannot be supplied in the time given to production. The least intense wants must remain unsatisfied and the marginal laborers will be transferred to new occupations supplying more intense wants. This transfer cannot be made unless a greater surplus is given to them than they procured from the same work in their old occupations.

The value of the marginal product equals not the cost of this product, but the utility of the most intense want remaining unsatisfied when the day's work is done. Or, what is the same, its value is equal to its cost of production *plus* the surplus that could be obtained from the same labor used in satisfying the most intense want which remains unsatisfied. The marginal value of each commodity consumed by a person tends to be the same as the value of the marginal increment of consumption. When this marginal increment gives a surplus of two units, the marginal value of each commodity will tend to be two units greater than its cost of production.

The principle becomes clear by bringing this reasoning to bear upon what has been said about interest. Each person values present higher than future pleasures, and hence the marginal increment of consumption for future goods will be higher than for present goods. Suppose a man values an increment of a commodity four units higher for present than for future consumption. Then if the marginal increment of present consumption has a surplus of two units, the same increment of future consumption will have a surplus of six units. Under these conditions he will supply all his present wants which give a surplus of two units, and all his future wants giving a surplus of six units. His interest consists in the gain he makes in supplying future wants which give a surplus of six units instead of supplying present wants which give a surplus of one unit. If he did not supply these future wants, his spare time, applied to satisfying present wants, would give him a surplus of but one unit, since all his present wants with two units of surplus are already supplied.

Suppose through some great reduction in the cost of production of future goods the surplus above cost for these goods formerly produced is increased to eight units. The laborer will now cease to produce those increments of each commodity which gave a surplus of but two units in present goods, and will devote his spare time to the production of future goods. The surplus in the production of present goods will rise, and that of future goods fall, until the marginal increments of present and future consumption differ by four units. The marginal increment of present consumption will yield perhaps three units of surplus, while that of future consumption will yield seven.

The sacrifice of the capitalist therefore is of the same nature as the sacrifice of a laborer, when the latter gets a surplus above the cost of his labor. The laborer gets this surplus because he abstained from some other labor which would have given him the same surplus. Like the capitalist, he is paid in this case for a negative act and not for a positive cost. Viewed from the position of society, neither of these acts is a cost, as they do not increase the positive pain which the members of society must undergo. Viewed from the position of the buyer of goods, both are cost because he must give a larger quantity of goods to get the articles they produce. Abstinence of either kind is a negative cost which affects the value of goods in distribution, but neither is a positive cost increasing the pains of production. To delay a pleasure or to change from one occupation to another is not the same thing as to undergo a pain, though they have the same effect on the value of goods to consumers. Aggregate costs, to the consumer therefore, are composed of two elements—the positive cost of production and the negative cost of abstaining from the surplus which might be obtained by actions in less complete conformity to the interests of society. When it is said that marginal values equal the cost of production, a surplus in the form of interest and wages is added to the real cost.

The prevailing opinion concerning the relation of value to cost comes from viewing industrial processes from the standpoint of distribution. While in production the producers stand united to barter with nature on the best terms, in distribution they stand opposed to one another. The question now is: How shall the return obtained from nature be divided among the various members of society? To answer this question we must know what forces enable persons to increase their share in distribution. Ricardo points out two forces controlling the distribution of utilities—the possession of scarce articles and the pains of production. A better classification would make four forces, adding to those already mentioned the ability to perform rare services and the sacrifice of one pleasure for another. Ricardo overlooked the third force, because he accepted the axiom that all men are born equal. Senior discovered the fourth, but he made the mistake of assuming that the sacrifice of pleasure is a cost like the pains of production. It is not a cost of production, but it has the same effect in the distribution of products. It is of no consequence to the buyer whether the producer sacrifices other pleasures to produce a given article or undergoes

positive suffering, but the difference between the two is of the greatest importance to the producer of the article. In the one case he has a great surplus after replacing the loss of vitality due to the act of production while in the other he has none.

So long, therefore, as we view values from the side of distribution, and only ask what will enable individuals to get a greater share of what is produced, there seems to be a multiplicity of causes of value. Values seem to be the result of the forces which act in distribution, and their sum equal to the sum of these forces. But these forces do not cause values; they merely distribute values already created. The real cause of value is the force which sets production in motion, and not the forces controlling the possession of its products.

X

Doctrines Which Obscure the Relation of Cost to Value

It is impossible to get at the relation of cost to value except by a method which is highly abstract and deductive. Value and cost are never seen in their natural forms except where a single man or a united society stand in direct relation to nature, bartering costs for utilities. Picture an isolated man unaffected by the problems of exchange and distribution, and it is easy to see that values and costs have independent causes. Values result from subjective states in the man, while costs depend upon his objective environment. Costs are what man gives up in his barter with nature: values are a part of what he gets back.

In the case of an isolated man the relation of cost to value is obscured because of the high cost of commodities to an isolated worker, and because of the low value of these commodities. Without a division of labor and without that intelligence and capital which can be secured only in an organized society, the cost of commodities must always be high. The tendency of cost to fall shows itself only when these conditions are supplied by the growth of social relations between men. To the isolated man values are also low, because so much of his time must be given to the production of absolute utilities, which merely sustain life; and the lack of variety in his consumption reduces the marginal utility of the few articles he has almost to zero.

The complicated phenomena of modern society also obscure the relation of cost to value because of the unequal distribution of wealth. Instead of the values of all commodities following one law, the value of one class commodities tends to sink until their value equals their cost, while other commodities have their value separated from their cost much more than would be the case under other conditions. There thus arises that distinction between commodities freely produced and those which are not. The classical writers have made much of this distinction, and have tried to show that the value of freely produced commodities tends to equal their cost. Their law of

value is, however, only a particular law, due to the effects of an unequal distribution of wealth.

The importance of this distinction between goods which are freely produced and those which are not, depends upon the industrial facts of each age and nation. The assumptions of Ricardo are true only in a particular stage of social progress. He assumes that all the laborers have the same industrial qualities, and that all capitalists have the same intelligence, machinery and capital. He pictures a primitive society where there is no lack of either capitalists to manage or laborers to work, and where the cost of production to all competing manufacturers is the same. Prices are governed by the "common, usual, and natural difficulties," which all producers must encounter. In a society of this character the distinction of Ricardo is of prime importance, because scarcity affects the value of one class of goods and not the other.

In modern societies, however, the importance of this distinction has vanished owing to the radical changes in the methods of production. We no longer have a sharp distinction between monopolized and freely produced goods. Every commodity is produced under such complex conditions that some of its elements have a scarcity value. Laborers do not have the same industrial qualities and employers do not have the same machinery and capital. But more important still, capital and labor no longer freely unite in fixed proportions to form commodities as oxygen and hydrogen unite to form water. A third agent, the undertaker, is necessary, and his services have a scarcity value. Scarcity becomes an element in the value of every commodity, while the value of all classes of commodities is separated more or less from their cost.

Through the endeavor of the classical economists to make cost and value identical, much was done to confuse the relation between the two. Their error lay in trying to make the sum of subjective costs equal to that of objective values. Objective values, however, are never a sum, but only a relation between subjective values. There can never be high or low objective values of commodities as a whole. It is, therefore, impossible to add to or subtract from them. Objective costs are also relations measured in money; and there can be neither high prices or low prices unless the value of money changes. There would then be no confusion if it were affirmed that objective values and objective costs were always equal. But such a law would be merely an identical proposition, of no use in economic theory.

The thought of the classical economists was to connect the efforts and sacrifices of production with the objective value of commodities. They recognized clearly enough that the efforts and sacrifices of production were sums which could increase and diminish, yet they sought to make this changing sum of efforts and sacrifices equal to the unchanging relations of objective values.

The contrast with subjective costs should always be subjective values. Although objective values can never change in amount, subjective values are sums like subjective costs. They are units of utility whose sum consti-

tutes a part of the total utility of commodities. They can therefore be increased or diminished, their sum changing with the marginal increment of consumption.

High subjective values do not cause high objective values, though they often change the objective values of particular commodities. If at one time the subjective value of a bushel of wheat is 9 units and of rye 5 units, while at a later period a bushel of wheat has a subjective value of 11 units and of rye 7 units, the subjective value of both commodities has risen, because their marginal increments give more pleasure to consumers. The objective value of wheat, however, has fallen, because the same wheat will exchange for less rye than before. Every change in the sum of subjective values will probably affect the objective value of some commodities, yet we must never overlook the fact that while subjective values usually go up and down together, because they depend upon the marginal increment of consumption, the rise in the objective value of one class of goods is always accompanied by the fall in value of some other goods.

In one respect, I think, the advocates of the theory of marginal values obscure the relation of cost to value by the importance they attach to the law of supply and demand. I agree with the Austrian economists in regarding the law of the cost of production as a particular law of value, but I do not think that anything more can be justly claimed for the law of supply and demand. By the use of hypothesis it is easy to create conditions where particular laws assume the character of general laws. By assuming a simple economic world where similar men have the same means of production, Ricardo gets a society where the law of the cost of production is the nearly universal law of value. By isolating a man from society and supposing him to have but a single means of supplying his wants, the Austrians seem to make the law of supply and demand the general law of value. Yet I doubt if they have succeeded any better than Ricardo. While the increase in the quantity of a given commodity may always reduce its marginal value if its possessor is isolated from other commodities, it is not true that the same result would follow if the person had a variety of possessions. Would not the inhabitants of an isolated colony, with a dozen new houses, attach a higher marginal value to 2,000 panes of glass than they formerly attached to 1,000 panes?

It is proper to isolate a man from the conditions of production in order to fix the subjective values of commodities, but is in an error to isolate him from all other commodities to determine the value of a single commodity. If the values of a group of commodities possessed by an isolated individual are normal, he must choose the relative quantities of these commodities. If a shipwrecked sailor can choose the articles he takes ashore, he will take such a quantity of each article that the utility of the marginal increments will be equal. The value of these articles will be normal because he can satisfy each want to the same degree, and will have no desire to alter the relative quantities of the articles he possesses. The value of commodities can be normal only when consumers control the relative quantity of each

commodity. Then the value of the articles he takes will be normal, and the marginal increments of value will be equal. Suppose, however, the ship sinks suddenly, and he picks up certain articles on the shore. The quantity of each article is now the result of accidental circumstances over which he has no control; and the law of their value is the law of supply and demand. This law only comes into operation when objective conditions fix the supply of commodities, and prevent the consumption of a person from following purely subjective laws. The increase in this total supply of commodities consumed by a person results in lower marginal values when the consumer cannot control the quantity of each article and the variety of his consumption.

The investigations of subjective value should begin with purely subjective conditions, and bring in objective conditions only after all the subjective laws have been formulated. The success of the Austrian economists is due to the observation of this rule. I contend, however, that they violate their own rule by the way in which they introduce the law of supply and demand in their discussions.

The first and primary law of subjective values is that value depends upon the final degree of utility. The second law is that the value of the marginal increments of all commodities entering into the consumption of a person tends to be equal. This is the law of normal values, and from it we get the idea of the marginal increment of consumption. The third law is that the value of the marginal increment of consumption depends on the variety of consumption. A greater total production may have a greater marginal value for each commodity if the number of articles is increased. Twelve articles of two kinds will make the utility of the sixth article of each kind the marginal utility, while fifteen articles of three kinds will increase the marginal value of each kind to the utility of the fifth article.

These are purely subjective laws. There are three more particular laws that result from different relations between man and his environment. The variety of consumption reduces the cost of production, and hence a fourth law (derived from the third) is obtained, that while in a progressive society marginal values tend to increase, the cost of production tends to decrease. The fifth law is that marginal values tend to equal marginal costs in a society that has fewer increments of employment than of labor. This is the Ricardian law of freely produced commodities. The sixth law is the law of supply and demand. We cannot say that the increase in the total supply of the commodities will lower their marginal values to individual consumers, because there may be an increase in the variety of consumption. Nor can we say that the increase in the quantity of any one commodity will lower its marginal value, because a change in the quantity of other commodities may increase its marginal value. But we can say that when objective causes increase the quantity of an article beyond its normal amount, its marginal value will fall.

The main cause which obscures the relation of value to cost is the niggardliness of nature. While the classical writers usually maintain that the values

of freely produced commodities do not exceed the cost of their production because of the law of competition, they have a reserve force in the combined action of the laws of population and of diminishing returns which really form the stronghold of their position. They contend that population increases so rapidly that the number of workmen exceeds the number of positions in which they can find profitable employment. It is a physical necessity which makes the value of each commodity equal to the sum of its costs if there is a greater number of increments of labor than increments of employment. The number of increments of employment in any society is limited by the number of opportunities for labor in which the cost of the product is not greater than its value. The number of the increments of labor is fixed by the number of the laborers and the time they work. It is one of the primary assumptions of the classical writers that the increments of employment are less in number than the increments of labor. Nature, they think, is so niggard in giving profitable opportunities for labor that the laborers have some spare time which has no value to them. Under these circumstances objective conditions fix the relation of value to cost, and it is of no practical consequence which one may determine the other. Change, however, the relation of the number of laborers to the number of opportunities for labor, and new possibilities arise. If every increment of labor creates a product greater than the quantity consumed in replacing the waste of production, the value of the product will be greater than its cost, and the tendency of values to follow subjective laws of the man, while costs follow objective laws of the environment, can be seen.

Suppose some ships lay stranded on a beach. Observers might affirm that ships can only rest on sand, and if one ship lay higher than another, it was because the sand under it held it higher. Let, however, the tide come in, and it will be seen that ships do not need sand to hold them up. They rise to the top of the water, and the sand remains at the bottom. If now one ship stands higher than the other, it is not because the sand under it is higher, but because of differences in the ships. One ship may displace more water than the other. As ships must have water, to show that they do not need sand to hold them up, so society must have a favorable environment to show that the value of its products does not depend on their costs. Values, like ships, rise while costs tend to fall, as society advances. The progress of society can be measured by the difference between its values and its costs, just as the depth of the water measures the distance from the ship to the sand under it. So long as the costs of commodities equal their values, society has made no real progress.

XI

The Importance of the Marginal Increment of Consumption in a Dynamic Society

The influence of the classical economists has been against the recognition

of those elements of progress which modify the wants of individuals and lead to changes in the consumption of wealth. By accepting, perhaps unconsciously, the position that the wants of men do not undergo any radical change during the successive stages of social progress, economists are led to assume that industrial progress merely increases the quantity of goods without producing any change in their quality and character. In such a society, where the wants of the people are static, the increased quantity of goods naturally leads to a fall in their value and this fall will not be checked until their marginal values equal their marginal costs.

These phenomena of a static society are the groundwork of the Ricardian theory of the cost of production. Does the cost adjust itself to the value or the value to the cost? The Ricardians, relying on the facts of a static society, affirm that cost is the fixed point about which values may fluctuate but from which they can never long depart. Their proof seems good, and their law universal so long as the search for facts is confined to a society in which the consumption of its members is unchanged.

In a dynamic society, however, these phenomena are different. The increase of industrial efficiency is used in supplying new wants of greater intensity, instead of supplying old wants more completely. At the same time every increase in the variety of consumption enables society to transfer its labors from the margin of production in the old occupations to new occupations. With every change in a dynamic society, the marginal increment of consumption supplies a more intense want, and hence the marginal values of commodities rise.

These facts cause the phenomena of value in a dynamic society to form a marked contrast with those in a static society. In the latter case the increase of industrial efficiency is used to supply old wants more fully, and thus marginal values must fall; while in the former case marginal values rise, in consequence of the transfer of labor from old to new occupations. If marginal values must gradually rise, because of the increase in the utility of the marginal increment of consumption, the question arises, how can marginal costs tend to equal marginal values? The same causes that increase marginal values lower the cost of production, and thus seem to render any correspondence of the two impossible.

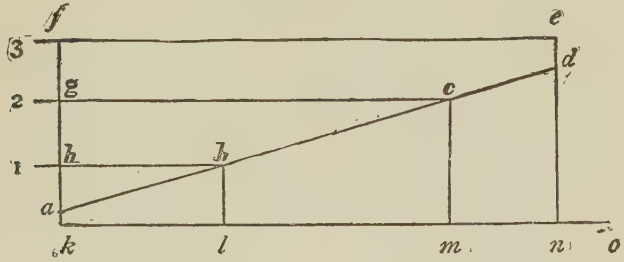
The key to the solution of this problem lies in the increasing intensity of the pain of prolonged labor. Each additional increment of labor involves an increase of pain to the laborer; and he will cease working when the pain of the last increment of labor equals the utility of the last increment of consumption. Whatever increases the marginal utility of the commodities consumed will cause the laborer to work longer each day.

We may imagine the pain of each increment of production to be represented in figure I by the distance from the lines *a d* and *k n*,[1] while

[1] In my reasoning, nothing depends upon the complicated curve which in reality the line *a d* makes. I shall, therefore, for sake of simplicity, assume that the first increment of labor each day involves some subjective pain, *a k*, and that this pain regularly increases with the lengthening of the working hours.

the marginal increment of consumption is measured on the line *k f* and the length of the working day on the line *k o*. When the marginal increment of consumption represents one unit, and is measured by *k h*, the length of the working day will be *k l*, and the marginal increment of production will have its pain measured by *b l*. When, however, the marginal increment of

FIG. I



consumption is increased to two units, *k g*, because of an increase in the variety of consumption, the length of the working day will be increased to *k m*, and the pain resulting from the production of the last increment will be *m c*. Let the changes in consumption continue until its marginal increment is three units, *k f*, and the time of the working day would be extended to *k o*, while the pain of the last increment of production would equal *k f*, if no new motives enter to influence the producer.

When, however, the productive power of society has increased beyond a certain point the efficiency of the workman becomes so great that the time needed to consume what he has produced cuts into the time needed for production, he ceases to work before the pain of the last increment of production equals the utility of the last increment of consumption. There is for the efficient workmen a surplus at the margin of production equal to the pleasure that could be obtained in using their time in unproductive consumption. I shall, therefore, assume that when the marginal increment of consumption equals *k f*, the length of the working day will be less than *k o*, say *k n*, and that the difference between the marginal increments of production and consumption is increased by each subsequent increase in the productive power of society. In a highly civilized society the pain of the marginal increment of production is reduced absolutely as well as relatively. The labor becomes so mechanical that it is less painful, and the length of the working day is shortened through the influence of forces made active by the increase of consumption.

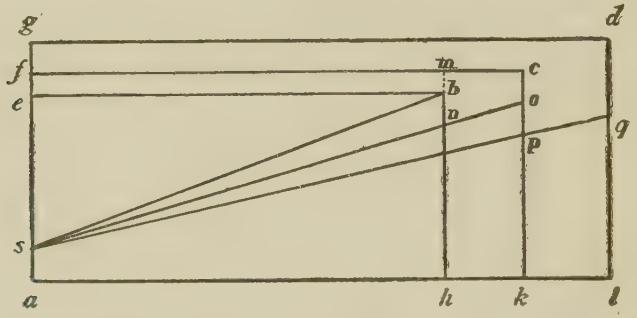
From this figure the dependence of the marginal cost of commodities on their marginal values can be clearly seen. Every change in the marginal increment of consumption brings some change in the pain of the marginal increment of production. The cost of commodities in a dynamic society is not a fixed point to which the values must adjust themselves. The phe-

nomena of the static society are reversed, since cost tends to adjust itself to value and not value to cost.

The figure also brings out the relation of total cost to total value.[1] When the marginal increment of consumption equals one unit, *k h* measures the value of each increment of the day's work. The total value of the day's work will be the area *k l b h*, while the total cost will be the space *a k l b*. The laborer will, therefore, have a surplus of *a h b*. As soon, however, as the marginal increment of consumption changes from one to two units the value of each increment is doubled. The total cost of the day's work will now be the area *a c m k*, while the total value is *k g c m*. A still greater increase of the total value of the day's work will accompany the rise of the marginal increment of consumption to three units. The total value will now be the area, *k f e n*, the total cost *a d n k*, while the surplus will be equal to *a d e f*. The rapid growth of the surplus and of total value is the remarkable fact connected with the changes in the variety of consumption, and the rise of its marginal increment. Total cost also grows, but much more slowly.

By changing the figure somewhat the influence of the marginal increment of consumption on total cost and total value can be seen more clearly.

FIG. II



Let the lines *a h*, *a k* and *a l* measure the quantity of goods produced each day in three successive periods of the development of a dynamic society, and let the marginal increments of consumption of these periods be equal to *a e*, *a f* and *a g*. The three rectangles *a e b h*, *a f c k*, and *a g d l*, will therefore represent the total value of the goods produced in each period. When the change is made from the first to the second period, through the increase of the marginal increment of consumption, the total value of goods produced in the early part of the day, and measured by *a h* will be increased by area *e f m b*. I do not, of course, mean that every increment will have its value increased by *e f*, the average increase. Some articles will rise much more than the average, and others may even fall in value; but, on the

[1] In all cases where values are regarded as sums, subjective values are meant.

whole, there will be an increase of total value equal to the area described.

With the change from the second to the third period a similar increase in the value of the goods measured by *a k* will take place, and the total quantity of goods produced will be further increased by *k l*. The producer gains both by the increase in the quantity of goods to be consumed, and by the rise in their value.

In the successive periods, however, the average subjective cost of the increments of consumption decreases. The labor has increased in efficiency, and a greater use of capital and knowledge has been made. There has been also an increase in the variety of consumption through which much of the waste of production can be saved, and a better use be made of the land. For these reasons the lines *s b*, *s o* and *s q*, which measure the cost during the three periods, will not be parts of the same line. During the second period the cost of the commodities *a h* will be reduced by the area *s b n*, and in the third period the area *s o p* will be cut off from the cost of the commodities *a k*.

A rise in the marginal increment of consumption affects not only the relation of total cost to total value, but also the relation of total value to the surplus of utility which consumers have in excess of the value of commodities. Every increase in the variety of consumption by raising the utility of the marginal increment of consumption reduces the consumer's surplus of utility, and causes the total value of commodities to approximate more closely to their total utility.

FIG. III

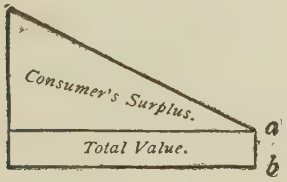
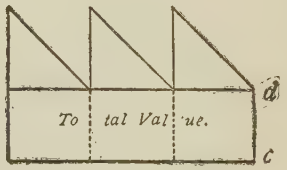


FIG. IV



Let figure III represent the utility of the food consumed by a person using only one article, say potatoes, and let figure IV represent the consumption of the same person during another period when he has three kinds of food, each of which affords a pleasure of consumption equal to that of potatoes. During the first period, when he must subsist on potatoes alone, the marginal increment of consumption *a b* will be low, and the total value of the potatoes will be small in comparison with the consumer's surplus of utility.

During the second period he uses the same quantity of food, but of three kinds. The marginal utility of each food will now be much greater than *a b*, and total values will rise at the expense of the consumer's surplus. If we suppose *c d* to be double *a b*, the following table will show the changes

in the proportion of total value to total utility, and to the consumer's surplus in these figures.

	III	IV
Total utility,	15	18
Total value,	6	12
Consumer's surplus,	9	6

It will be noticed that while total values were doubled by the change, the consumer's surplus is reduced by a third. Every increase in the variety of consumption has a similar effect. The consumer's surplus is swallowed up by the growth of total value, and the latter constantly approximates more closely to the total utility.

This conclusion is, of course, different from that drawn by classical economists. They assume that progress lowers prices, and gives to consumers the benefit of improved production. If my conclusion is correct, individuals as consumers lose more than they gain by social progress. What they gain they secure chiefly through their power as producers to compel society to give them a larger share in distribution. Whoever has not this power, loses through the progress of society.

XII

The Distribution of Subjective Values in the Theory of Social Progress

Thus far I have disregarded the difficulties of the distribution of wealth, and its effects on the value of commodities. It was necessary to do this to free the discussion from many of the complex relations which arise in modern society. In the Ricardian economics the theory of distribution holds so dominant a place that correct theories of production and consumption are likely to be distorted by preconceived ideas. To prevent this, the physical basis of economics must for a time be kept out of view. By following this order of development my task was made easy by the fact that all the disagreeable aspects of the science lie in the consideration of the problems of distribution. It is more pleasant to describe the surplus of production than the deficit of distribution.

It is greatly to the credit of Ricardo that he applied his premises unflinchingly, even to the most dismal facts. Had he been held back like Malthus, by optimistic doctrines, the theory of distribution would have relapsed into that hazy condition in which it was left by Adam Smith. The stability of Ricardo's system is due largely to his willingness to test his theory by unpleasant facts—a test which any new theory must also meet.

There is, however, a more cogent reason for a reëxamination of the theory of distribution. Ricardo goes out from certain physical premises. By emphasizing the differences in nature he makes his theory of distribution

depend upon the laws of rent and diminishing returns. An economic theory, however, that starts from man and society, must make its deductions rest upon the subjective differences which result from social progress. It must couple differences in men with the common qualities of land, just as Ricardo made the differences of nature and the common qualities of men the starting point of his system.

While natural forces are free to society, they are appropriated, and individuals who are without them must pay for them. The accumulated results of civilization are also free to society, but costly to many of its members. The power to make use of the knowledge and experience of the race is confined to those who have inherited certain mental qualities, or have acquired them by education. These persons appropriate the accumulated wisdom of the past in the same way in which land owners use the results of natural forces.

There are thus two causes that give rise to an unequal distribution of wealth, one of which is subjective, and the other objective. The objective cause lies in the differences of return obtained from the various instruments of production used by men. The subjective cause lies in the differences in men, accompanied by differences in the urgency of the wants that different laborers supply. Differences in land form so good an example of the objective cause that it needs no further illustration. The subjective cause is not so fully understood, and demands careful attention.

As a result of earlier conditions, society is divided into two parts—men with economic instincts, and those who lack these instincts. Those who save, or have faculties needed to organize our great industries, become capitalists and employers, while the laboring classes, having their industrial qualities less fully developed, must follow manual occupations. The laboring classes, in a highly developed social organism, get work, not by the direct utilization of natural forces, as is the case in a simpler social organism, but by supplying the wants of the higher classes. With every increase in population, a better use of labor and natural forces must be made in order to supply the increased demand for food and other commodities; and, as a result, the laborers become more dependent upon the higher classes who have the industrial qualities needed to increase production as rapidly as population increases. A growing nation can continue progressive only by placing its industries more completely under the control of the intelligent classes, yet this increased control adds to the evils of distribution. The laborers now get their living, not as before directly from nature, but indirectly by supplying the wants of the higher classes. In any society where the laborers are increasing more rapidly than the employing classes, the additional laborers get work only by supplying the less intense wants of the higher classes who control and organize industrial forces. There will thus be a constant tendency towards a lower rate of wages, because some of the laborers will be engaged in producing articles supplying wants of the higher classes of so little intensity that only a low rate of wages can be paid. No one will give more for an article than the pleasure he gets from

it; and wages must fall when the public is so well supplied with commodities that the consumption of additional quantities will give it but little pleasure.[1]

An increase in the number of laborers, therefore, in any occupation, tends to lower the wages of laborers, because these additional laborers bring upon the market goods which are used to supply wants less intense than those supplied by the previous laborers who are producing the same goods. Suppose, for example, an additional one hundred men should wish to get work of an employer, who already had one hundred men and one hundred thousand dollars capital. He must now save another one hundred thousand dollars in order to employ them. With the return which he obtained from the first one hundred thousand dollars, he supplied his most intense wants, and if he has to save another hundred thousand dollars, he would only do it to supply his less intense wants—such as are not already supplied. He will not supply these less intense wants, unless the men will work for less wages. The additional one hundred men, therefore, will be compelled to work for lower wages, and then the wages of the first one hundred men will also be reduced. Competition brings all wages down to a level.

So long as the development of a society is unaffected by the evils of distribution every increase of productive power enlarges the variety of consumption, and causes the total value of commodities to approach more nearly to their total utility. The unequal distribution of wealth reverses this tendency, and lowers the marginal increment of consumption. The changes that follow the organic development of society are checked, and the wealthy remain so static that they use their prosperity to supply old wants more fully, instead of increasing the variety of their consumption. Their pleasures become perverted, and they expend their income largely in conventional ways that will distinguish them more fully from their less fortunate neighbors. This end can be best reached by duplicating as often as possible the means of supplying their wants. They use more servants, they keep more horses, they occupy several houses, and wear a greater variety of clothes and ornament. As each additional servant, house or other article has less utility, the value of the final increment of their consumption sinks quite low.

The same change takes place among the less fortunate parts of society, whose wages are lowered. Each individual must have certain absolute utilities which are necessary to sustain life. If his condition is improved, he will exchange these absolute utilities which ward off pain but give little pleasure, for other articles that have a higher positive utility. When the pressure of an unequal distribution of wealth reduces his income, he gives up the articles in the reverse order in which he brought them into his consumption. Articles of a high degree of positive utility are given up first, and other articles having merely an absolute utility are substituted in their places. Cheaper articles can usually be obtained, which will prevent hunger,

[1] Compare Chapter VIII in the writer's *Economic Basis of Protection.*

thirst and other natural causes of misery. The marginal increment of consumption of the laborer is, therefore, lowered by the same causes that lower the marginal increment of the more fortunate classes.

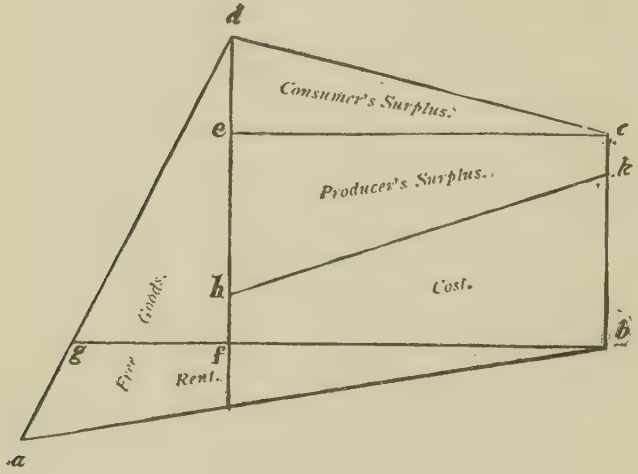
The changes following a more unequal distribution of wealth affect all classes of consumable goods in the same way. They fall in subjective value, because the marginal increment of all classes of consumers is reduced. By these changes the laborers suffer a double loss; the value of the marginal increment of production falls, and a greater part of their consumption is composed of articles which merely ward off pains. The wealthy, however, secure a double gain. The value of the goods they consume is lowered by the fall in the marginal increment of consumption, and at the same time the surplus of utility above value that consumers secure is increased. The consumer's surplus grows with every change that increases the quantity of goods consumed without increasing their variety.

The total utility that a society derives from its economic environment is divided into five parts. The cost represents the part of the utilities needed to restore to producers the vitality lost in production. Rent is the share received by the owners of natural resources. Producer's surplus is what producers receive above the *real* subjective cost of their articles. Consumer's surplus is the utility which consumers get above the value of the commodities they consume. Free goods are those utilities which are furnished by nature without the coöperation of man; they are free to society, but when appropriated have a cost to individuals who are without them. Air, sunlight, water, mineral resources, and even the mountains and seashore, when used as pleasure resorts are goods of this character. In this division subjective values are divided into cost and producer's surplus. Cost, therefore, is viewed from the standpoint of society, and not from that of employers or of consumers. The producer's surplus includes not only employers' profits, but interest also and the surplus of the laborers. The surplus of all the active participants in production is thus contrasted with the income derived from rent. In a society where the distribution of wealth is unequal, rent, free goods and consumer's surplus pass very largely out of the hands of the producing classes. Rent, of course, goes to land holders. Consumer's surplus is mainly received by those whose incomes are so large that they can duplicate the articles of their consumption which supply the same wants. The less fortunate classes in society get but little of this surplus of utilities, since the greater part of their incomes is used to procure articles that are absolute utilities, but have not much positive utility.

In the early stages of social progress, fuel, pasture, and many kinds of food are free and enjoyed by all classes of society. Gradually these utilities are appropriated and must be paid for by the producing classes. At the same time another class of free goods, such as water, light, and air, lose their purity and excellence, except under particular circumstances. Where men congregate together in large cities, the water and air become impure, while the massing of buildings in a small space shuts out the sunlight. The lack of these free goods in a pure form is a source of disease and suf-

fering, unless the income of the individual is so great that he can live in parts of the city where they are good. City life is also so depressing that relief must be sought in the summer months in the mountains, or on the seashore where pure air, water, and light are still to be secured. But the incomes of the less fortunate classes are not large enough to allow such expenses, and hence these free goods fall into the possession of the wealthier classes.

FIG. V



Let the total utility enjoyed by society be represented by the area *a b c d* cut up into the five parts I have mentioned. The interests of producers lie almost entirely in the rectangle *b c e f*, the size of which depends upon *b c*, the marginal increment of consumption. As *b c* is lengthened the consumer's surplus is absorbed by the producer's surplus, because the greater variety of consumption permits the use of fewer commodities in ways that make them mere duplicate supplies of the same want. At the same time the greater variety of consumption allows the use of the land for what it is better fitted. Cost is thus reduced, and rent falls because the poorest land for each commodity ceases to produce it. Every dynamic change in society increases the distance between *e c* and *f b*, and causes the producer's surplus to grow at the expense of all the other classes of utilities. Whatever reduces the marginal increment of consumption counteracts these changes. Consumption becomes more static and less varied. In this way the surplus of consumers is increased, and by putting the land to fewer uses rent and cost are also increased. Agricultural rent and consumer's surplus thus increase and decrease by the same causes. Few wants mean high rents and a large consumer's surplus.

There is thus a conflict of interests between the static and dynamic ele-

ments of society. The static tendencies reduce the area *b c e f* by reducing *b c*, the marginal increment of consumption. They tend to produce a low value of finished goods and a high value of the materials of production.[1] The larger the consumer's surplus and the greater the value of the materials of production, the more powerful will be the static elements of society. Producers, however, and those interested in the dynamic changes in society, gain by a high value of finished goods and a low value of material. Society progresses only by increasing the margin between the two.

The subjective cause of the unequal distribution of wealth therefore lies in differences in producers and in the static condition of the consumption of society. Make the differences in the productive power of the higher and lower classes greater than they are, and the evils of distribution will grow. Make also the consumption of a society more static, and these evils will become still greater. Differences in land and other objective causes of an unequal distribution of wealth are prominent only in the early stages of civilization, where differences in men are small and their consumption static. The growth of intelligence reduces the differences in land by making poor land better land, while the increase of the variety of consumption hastening this change reduces the quantity of rent due to physical causes.

The Ricardian theory, therefore, is not the only explanation of the unequal distribution of wealth. It is not even an adequate explanation of the leading phenomena of distribution in modern industrial societies. Like the theory of the cost of production and other Ricardian doctrines it sets up a particular for the general law. It derives its strength from an undue emphasis of primitive conditions where men are most dependent on nature, and their consumption has the least variety. It is at best a theory of a society the ideas and wants of which are so static that the utilization of the less productive instruments of production offers less resistance to progress than any change in the use of the better instruments.

XIII

The Distribution of Objective Values

In the foregoing section but one class of the laws of distribution has been considered—that relating to social progress. The marginal unit of consumption fixes the producer's surplus, and every change in it increases or diminishes the share that each class in society receives. The whole producing class, however, is considered as a unit; its interests are contrasted with the more static classes in society, who appropriate rent, as well as the greater part of the free goods and consumer's surplus.

In a primitive society before the sub-division of the producers into classes, the laws of distribution which depend upon changes in subjective values would be an adequate explanation of the phenomena of distribution. Wages, interest, and profits make up the income of each producer, and he draws

[1] See the writer's *Premises of Political Economy*, page 146.

no sharp distinction between them. But he does see the opposition between his interests and those of the land-owning classes and other non-producers. He feels the burden of rent, and is conscious, perhaps, that he is deprived of his share of free goods and consumer's surplus. In a more advanced society the producers become separated into classes, and the problems of distribution become more complicated. The laborers feel that their interests do not harmonize with those of their employers, and the latter assume a function in society distinct from that of the capitalists, who save but are not active in production. Wages, interest, and profits become distinct funds, each of which has its own law of increase. At the same time, rent ceases to be a single fund determined by one law. The rents from agricultural lands, city lots and mines, are distinct funds. Even mountain and seashore resorts have rents whose amount depends upon a distinct class of considerations.

In the discussion of subjective values we considered the relation of total values to total utilities, and showed under what conditions the sum of subjective values increases and approximates more closely to the sum of utilities. Every increase in subjective values increases also the difference between the total cost of production to society and the sum of subjective values. The surplus revenue, which forms the difference between the two, is the sum for which each factor in distribution is striving, and the laws of its distribution are those for which we are seeking. There can be no doubt but that each factor will secure enough to repay its costs, yet as society progresses and the difference between total costs and subjective values increases, any factor loses a relative advantage if it fails to secure its share of the surplus revenue.

In this way the problems of distribution change from a consideration of subjective to objective values. The power of any class of producers to retain or increase its share of the surplus revenue depends upon its ability to control the objective value of its products. The subjective value of the products may be high, yet if the ratio at which they exchange for other commodities is low, the producers will get but a small share of the surplus revenue. If at one period the subjective value of commodities A and B is three units each, and subsequently the subjective value of A rises to four units and that of B to five, the producers of A will lose by the rise of subjective values, because the rise will take from them, in every exchange, a part of the surplus revenue they formerly enjoyed.

In a theory of progress opposition lies between the producers as a class and the consumers as a class. The higher the subjective value the greater the part of the whole sum of utilities which the producers will secure, and the less will be the share that the consumers get with no cost to themselves. In changes in objective values the opposition of interests lies between various classes of producers. The consumers are neutral because they gain by the fall in value of one class of articles what they lose by the rise of another class. Each class of producers, however, has a direct interest in

creating a high objective value for its products, thus lowering the objective value of other classes of goods.

Therefore, we must first discover how changes in the relative shares of the different factors in distribution show themselves in the objective value of commodities. In what way will high wages change the proportion in which commodities exchange for one another? Can a reduction of the rate of interest, for example, be discovered by examining the changes in the objective values of different classes of commodities? Mill, as well as other economists of the classical school, denies that the objective values of commodities are affected by changes in distribution. "A rise or fall of wages," he says, "is a fact which affects all commodities in the same manner, and, therefore, affords no reason why they should exchange for each other in one rather than in another proportion." High wages are supposed to result in low profits, and low wages in high profits, without any change in objective values.

The recent development of economic doctrine, however, has modified this conclusion, and has shown ways in which the objective value of different classes of commodities can change without having general high values as a result. The recent discussion of the law of interest has had great influence in clearing up the ideas of economists on this subject. It has been clearly shown that interest results from the differences in values of present and future goods. Every change in the rate of interest affects the objective value of these classes of goods. A high rate of interest (or of profits, in the terminology of Mill) does not result in low wages, but in higher objective value of present goods.

A high rate of wages does not affect the value of all commodities alike, as Mill supposes, but raises the objective value of commodities which are produced mainly by labor. It shows itself in the two ways. Those commodities that are produced without much fixed capital rise in value at the expense of commodities produced with more fixed capital. Finished goods also rise in value with an increase of wages, while the raw material falls in value.

Rent rises with every increase of the value of raw material as compared with the value of finished goods.[1] Every increase of the approximation of the value of the raw material to the finished goods produced from it reduces wages and adds to rent. The opposition of interests between laborers and landlords is direct, and any advantage gained by one over the other is revealed by changes in objective values.

Profits arise chiefly in the newer industries where the changes in the methods of production are most rapid. A reduction in the difference in producers, causing a fall in profits, would also lower the objective value of commodities produced in these industries and raise the value of goods produced in the stationary industries. If steel be a sample product of the newer industries, and calico of the older industries, a fall in profits will cause

[1] "Premises of Political Economy," Chap. IV.

more pounds of steel to exchange for the same number of yards of calico; that is, the objective value of steel will fall, and that of calico will rise.

A rise in the objective value of a particular class of goods is not at the expense of consumers, but of other producers. The objective value of other classes of goods is lowered to the extent that the first class of goods rises in value. If, for example, the price of sugar rises a cent a pound, the producers of sugar have transferred into their hands a sum of satisfactions which was formerly enjoyed by other classes. Out of what fund does it come? Not come from costs, because each producer must have the equivalent of his real costs. It must come either from the surplus of consumers or that of producers. The size of the consumer's surplus depends upon the difference in satisfaction between the marginal increment of consumption and the previous increments. Consumer's surplus grows with changes which decrease the variety of consumption and lower subjective values. It decreases under the opposite conditions. A rise in the price of sugar would tend to reduce the variety of consumption and to lower subjective values. Consumer's surplus, therefore, would be increased rather than decreased by the rise in the price of sugar. The consumer's surplus in the consumption of sugar would, of course, be decreased by the rise in the price of sugar, but the whole consumer's surplus and not some one part of it, must be kept in mind. If the marginal increment of consumption is not changed, what the consumers lose by the rise in the objective value of one commodity is regained by the lower objective value of other commodities.

The same conclusion may be reached by another line of reasoning. If the expense of buying sugar nearly equaled the pleasure derived from its consumption, the increase in price would so reduce the consumption of sugar that the net profits of the producers would be reduced. If producers find it profitable to raise the price of sugar, a great part of the sugar must supply urgent wants. The consumers, therefore, would reduce their consumption of other articles to enable them to supply their urgent desire for sugar. Those articles would be affected the most whose utility barely exceeded the expense of securing them, while the reduced demand for them would lower their value. Consumers would thus obtain a recompense, and the gain of these producers would be the loss of other producers.

The reasoning becomes simpler and clearer when we think of a dynamic society when its productive power is increasing and the marginal increment of consumption is rising. The consumers as a class could not gain by the increase of productive power because a rise of the marginal increment of consumption reduces the consumer's surplus. A rise in the price of sugar, therefore, would put a larger share of the gains of improved production into the hands of the producers of sugar, to the detriment of other classes of producers. The loss of the other producers is in this case not absolute but relative, which is the character of most of the losses under present social conditions.

If we think in general terms, overlooking the effects on particular com-

modities, it is not difficult to see that changes in objective values do not increase the expenses of consumers, but reduce the gains of other producers. While most persons have definite ideas concerning the relation of cost and value, they have no definite idea of the relation of value to utility. They think of utility in a misty fashion as exceeding value, but having no fixed relation to it. We must become conscious of the definite relation in which utility stands to value before we realize that the consumer's surplus is a definite quantity whose size is controlled by clearly defined laws. It is not a dumping ground where, for lack of proper classification, utilities can be stowed away. In accepting the doctrine that value depends upon marginal utility, consumer's surplus becomes one of the most simple and definite concepts of economic science.

At this point we must pass from subjective to objective values. The share of the surplus revenue secured by each class of producers depends upon the objective value of what it produces. Each producer strives to increase the objective value of his commodity, thus decreasing the relative share in the surplus revenue of other producers. If, like subjective values, objective values were a sum to which we could add or from which we could subtract, we would have general high values or general low values. The impossibility of such a result should be a convincing proof that the higher objective value of one class of goods is impossible without a lower value of some other class of goods. It is not a change in costs which affects objective values, but changes in the relative increase of different classes of goods.[1]

XIV

The Minimum Shares in Distribution

As soon as we realize that changes in objective values result from changes in the relative rates of increase of the various factors of production, it is evident that the shares of the more rapidly increasing factors tend to decrease, while that of the more slowly increasing factor tends to increase. It is important, therefore, to determine what is the lowest limit to which the share of each factor can be reduced when its rate of increase is too rapid.

At first thought it would be said that the shares of the more rapidly increasing factors will be reduced until all the surplus has passed into other hands. This point would be reached when the subjective costs of the factor just equaled the subjective value of its products. It is impossible, however, to exclude a factor from all participation in surplus revenue because of differential costs. Differences in fertility and in situation enable the owners of better lands to secure a share of the surplus, though the owners of the poorest land are entirely shut out. The different cost of producing goods

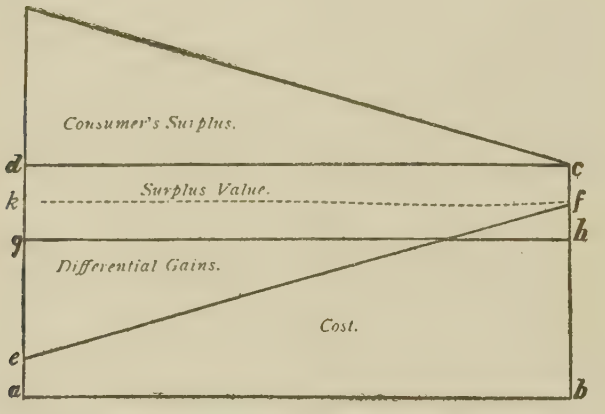
[1] This section and the following should be read in connection with my "Stability of Prices" (American Economic Association, Vol. III, No. 6), as in it the basis of my reasoning is more fully presented.

permits the better class of employers to hold on to a part of the surplus, even if other employers get no profits. And the same causes always enable some of the capitalists and laborers to secure differential gains. In a progressive country it is doubtful if wages ever are so low that the subjective cost of the products of the marginal laborer merely equals their subjective value. The standard of life of his class acts as a barrier to the fall of wages, securing for him some of the surplus.

It is not probable, therefore, that the shares of the more rapidly increasing factors are forced to their lowest limit. The fall of the objective value of their products reduces the rate of the increase, while the rise in the objective value of the products of the more slowly increasing factors adds to their rate of increase. Unless the difference in the rates of increase is very great, an equilibrium will be secured before any factor is forced down to its lowest limit.

The limits to the changes in objective values can be seen in the following figures.

FIG. VI



The whole figure represents the sum of satisfactions derived by a society from articles of value. The area *a b c d* represents the sum of subjective values, the line *b c* the marginal increment of consumption, and the area *a b f e* the subjective cost of producing increasing quantities of goods. The line *b f* being the cost of the marginal increment of production, the line *c f* will equal the difference between the marginal increment of consumption and that of production.

These two marginal increments will not be equal. The second remains less than the first in any society where environment is so favorable that the laborer obtains a surplus from the last increment of his production. Differences in our estimation of present and future goods increase still more the difference between the two marginal increments. The increase of value due to the change of future goods into present goods is a surplus value,

and while interest is paid the marginal increment of production must be less than that of consumption. If the former increment were equal to the latter there could be no interest, nor could the marginal laborer produce a subjective value greater than the sum of his subjective costs.

The surplus revenue divided among the factors in distribution is equal to the sum of subjective values *a b c d* minus the subjective cost of production *a b f e*. This surplus is divided into two parts. The differential gains are fixed by the difference between the cost of the marginal increment of production and the earlier increments. The remainder is the surplus value, and is measured by the difference between the marginal increment of consumption and that of production.

In relation to differential gains it is necessary to call attention to the fact that the order in which the different increments of a factor will come into use when more increments are demanded is not the same as that in which they will go out of use when fewer increments are wanted.[1] If a given field will not come into cultivation until the price of wheat is 80 cents it may not go out of cultivation until the price falls considerably. If 70 cents were the cost of producing a bushel of wheat, and 10 cents gave an adequate return for the cost of bringing the land into cultivation, a change in the relative increase of land would allow the price of wheat to fall to 70 cents before the withdrawal of lands would exert an influence on the price of wheat. It is needless to explain how the same causes affect the other factors of production. The effect of this difference is to increase the possible fluctuations in objective values, and to reduce considerably the amount of differential gains which the more rapidly increasing factors can hold when the value of their goods tends to fall.

If the line *b f* represents the cost at which the marginal increment of production was first produced, a shorter line *b h* will represent the minimum cost, below which the increment would cease to be produced. Therefore the line that separates differential gains from surplus value is *h g*, and not the line *f k*. Differential gains under these conditions represent the minimum shares of the different factors in the surplus revenue and they cannot be reduced without an actual decrease of production.

In our figure three of the four areas, representing consumer's surplus, cost, and differential gains are fixed by causes independent of changes in objective values. Changes in objective values can only alter the distribution of the surplus value. Whether any factor obtains a large or small share, depends upon its relative rate of increase; and as the relative rates of increase change from time to time parts of this surplus value will be transferred from factor to factor.

The most extreme case would be when there was no demand for an increase of any of the factors but one. The most slowly increasing factor would secure all the surplus value, and the more rapidly increasing factors would obtain none of the surplus, except their share of the differential

[1] *Premises of Political Economy*, page 34.

gains. Such a condition of affairs would never happen under actual conditions. It merely represents an ideal case, and shows how the distribution of surplus value depends upon objective values. Most of the differential gains, however, will be absorbed by rent and profits. In the earlier stages of progress rent will be the prominent element, while in later stages profits become more important. The increase of intelligence causes society to esteem more highly what was previously regarded as the poorer natural resources, thus reducing the relative importance of rent, and at the same time the increasing differences in men tend to augment profits.

There is, however, no sharply defined line between rent and profits on the one hand, and interest and wages on the other. The area *g h f k* may, under some conditions, be a part of rent and profits and under other conditions it may be absorbed by interest and wages. In a dynamic society the tendency becomes stronger to confine rent and profits to differential gains and to give all the surplus value to the capitalists and laborers. Yet any change in the relative rates of increase of the various factors will change the distribution of the surplus value, giving a part of it to landlords or to the managers of industries.

The recent fall in the value of agricultural land throughout the Eastern States is an example of the manner in which the distribution of surplus revenue is changed from one class of producers to other producers. There has been no fall in the retail price of food in Eastern cities; thus showing that consumers have gained nothing by the fall in the value of farm produce. What the farmers have lost has been secured by those classes of producers who stand between the farmer and the consumer of food. A part of the surplus revenue of society, which was distributed as rent, has now become profits.

The classical economists lay much stress on the law that rent does not enter into the cost of production, and Walker in developing his theory of profits claims that the same is true of profits. According to the newer conception of value, cost of production does not determine values, and hence the law in question cannot be conformed to present views of value. This law, however, can be expressed in another form. Instead of saying that rent and profits do not enter into the cost of production, it should be said that differential gains do not affect objective values. The latter law asserts the truth of the former in a way that is free from objection.

Let me repeat in outline the theory presented, contrasting it with that of the classical school. We begin with the distinction between cost and surplus. Cost is the pain of production, while surplus is the excess of satisfaction obtained by society in the consumption of economic goods above the cost of producing them. Both cost and surplus are subjective quantities. They are sums to which we can add or from which we can subtract. The surplus is now divided into three parts—free goods, consumer's surplus, and surplus revenue. To draw the line between consumer's surplus and surplus revenue we must fix the marginal increment of consumption. This incre-

ment—the last increment consumed—has no consumer's surplus. The consumer's surplus thus becomes a definite fund whose amount is determined by the marginal increment of consumption. This division cuts off from the whole surplus a definite quantity which is given over to the consumers without expense to them. The remainder of the surplus is surplus revenue. It is a part of the expenses of consumers, but is not a return to producers for their real costs.

We next divide surplus revenue into two parts—differential gains and surplus value. The first is fixed in amount by the differences in the cost at which different articles are produced. Differences in nature cause rent; differences in men cause profits. The distribution of surplus value is determined, however, by changes in objective values. This is the only portion of the surplus, therefore, whose distribution is not fixed by abiding causes, making the contest between different classes of producers for a larger share in distribution a struggle for the surplus value. Its distribution is determined by the rates of increase of the various classes of producers, because the objective value of goods depends upon their relative rate of increase.

There are thus three laws of distribution, each controlling a particular portion of the surplus. To determine the whole distribution three independent investigations must be made: the first relates to the marginal increment of consumption, because it determines the amount of consumer's surplus; the second to differential costs, because they determine the amount of differential gains; and the third to the rates of increase of the various classes of producers, since they determine the distribution of the surplus value. No theory of distribution is complete without a clear knowledge of these laws and their effects.

The classical theory, however, begins not with a contrast of cost and surplus, but of cost and objective value. The labor theory of Adam Smith is brought in to show that objective values of different commodities depend upon and are equal to the cost of their production. Differential gains are recognized by Ricardo in the form of rent, and surplus value appears in the form of profits. The laborer does not share in surplus value because population tends to increase more rapidly than subsistence. The margin of cultivation determines the amount of rent and the rate of profits. The fall in the margin of cultivation takes the surplus value from the capitalist, giving a part of it to the landlord as rent, and the remainder is absorbed by differential costs. The law of rent thus becomes the central point of the Ricardian theory of distribution. The assumed existence of no-rent lands makes rent a definite share that can be cut off from the whole product independently of the other shares in distribution. Each of the other shares is cut off in the same independent manner, and what is left after all the other shares have been cut off goes to the residual claimant. Who this claimant is, is a matter of dispute among the followers of Ricardo, though they all follow his general plan of dealing with each share independently of

the other shares, and, logically at least, always have a residual claimant. Consumer's surplus is not clearly defined; its boundaries are indefinite and its laws are not investigated.

In the new theory consumer's surplus takes the central place occupied by rent in the old theory. There is a no-consumer's-surplus increment of consumption in the place of a no-rent tract of land. As differential gains do not lie at the basis of the new theory, the controversy as to no-rent land loses its theoretical importance. The new theory predicates differences in soils, but it does not need the assumption that there are soils of all degrees of fertility. It also predicates differences in men, but it does not assume that there are always men so inefficient that the value of their products is only equal to their costs. These differences are facts of interest worthy of investigation, but are of little importance either in the theory of value or of distribution.

XV

Retail Prices

In the discussion of the laws of distribution it is traditional to consider the product of industry as divided among the different classes of producers. The whole mass of present goods—the annual produce of industry—thus becomes either rent, profit, interest, or wages. If we take a purely objective standpoint it is evident that the material products of industry at the end of each productive period are in the hands of the producers, and must in some way be divided among them. The primary question of distribution, however, is not the distribution of the material products, but of the satisfactions which their consumption affords.

The satisfactions of the individual consumer lie at the basis of subjective values. His estimates are those which determine the direction and amount of production. The starting point for determining subjective values therefore is consumers' values. Producers' values are secondary, depending upon consumers' values, and to which they must stand in some definite relation. They are separated from each other by a gulf, the origin of which must be investigated, and its width determined.

Producers' values, it is almost needless to say, are wholesale prices, while consumers' values are retail prices. The classical economists gave to wholesale prices their main consideration. They assume that retail prices are separated from wholesale prices by a certain margin. They admit that the law of competition works with more friction in retail than in wholesale prices, yet they see no need of a special law, giving the subject little attention beyond a few remarks as to the influence of custom and habit. From their standpoint this scanty attention to retail prices is justified. If costs determine values and the distinction of wealth is determined almost wholly by objective facts relating to the environment; if rent is determined by differences in soils, and profits and wages by the margin of production—then all the vital problems of value and distribution are settled before the distri-

bution of commodities to consumers begins. Retail trade has no connection with economic theory and may be neglected by theorists without any loss.

But if we take another conception of the cause of value and decide that the value of commodities depends not upon their cost of production, but on their utility to consumers, the relation of retail to wholesale prices is an important link in the theory of values. The retailer stands nearest to the great body of consumers, and his prices are those that determine what shall be the relative quantities of the different commodities consumed. If he can charge more for bread when improved production is reducing the price of wheat, or if a higher price of meat accompanies the social changes which reduce the price of cattle and hogs, the causes that fix the relation of retail to wholesale prices must be vital to the theory of values. Custom and habit might account for the slowness with which a reduction of retail prices follows a fall of wholesale prices, but they cannot account for a change in the opposite direction.[1]

A rise in retail prices indicates certain changes in the social organism by which the utility of the retail dealer to the consumer has been increased; and the cause of this increased dependence of the latter on the former becomes evident as soon as we clearly picture the changes in family life that have accompanied the increase of productive power in modern times. When the productive power of a nation is small the people are compelled to economize as consumers in order to exist at all. The most available means of economy consists in living together in large numbers. A large family can be economical in many ways which are impossible in a smaller one. The supplies can be purchased in large quantities; the waste of the table is reduced; and a much smaller proportion of the members is taken from production to provide for household comforts. Usually the journeymen and apprentices live with the master, and they delay marriage so long that the number of families is small in proportion to the whole population.

With the increase of productive power comes a regressive tendency in consumption. The master lives by himself and each of his workmen is enabled to have his own family life. Though this change is to be regarded as a social improvement, it is necessarily accompanied by great losses in consumption. Household work falls into less intelligent hands and the waste in cooking is increased as the families decrease in size. The small family cannot so readily buy food in large quantities and store it away for future use; while in cities it becomes impossible to keep a stock of any size for lack of proper facilities. The cellars are now filled with furnaces to heat the houses, and are thus rendered unfit for storing away anything but coal. In most families the possibility of storing food is limited to a small ice box.

In these and in many other ways the dependence of the consumer on the retail dealer has been increased by modern progress. As the size of consumers' units becomes smaller, the power of the retail dealer over the con-

[1] See Patten, *Principles of Rational Taxation,* Publications of the University of Pennsylvania, No. 6.

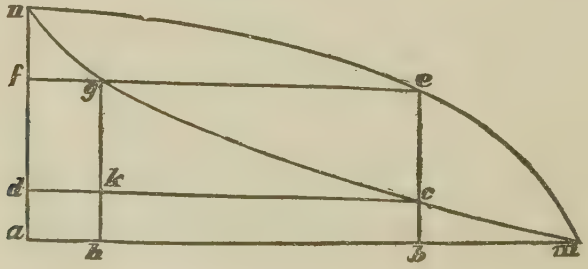
sumer grows, until he finally becomes a necessity. He is not, however, to be looked upon as a burden to the consumer, since he places articles in the consumer's hands in a form that increases their utility. Just as the making of cloth has been taken from the family and placed in the hands of particular producers, so the storing and distribution of food and family supplies have been taken from the family and given to retail dealers.

Economists have recognized the social changes by which the making of cloth and other articles has been taken from the family and given to a special class of producers, but they have not adjusted their theories to the other social changes which make the home more private and a place not fitted for storing food and goods. The prices they have in mind are not those that the consumer must pay under his present condition, but wholesale prices from which the consumer is separated by an impassable gulf. Commodities in the possession of wholesale dealers are but partially produced. The farmer in raising wheat creates a form value, the transportation companies give it a place value, and the retail dealer in bread gives it a time value. Any theory of prices that considers only the first two changes is incomplete, and shows how inherited notions prevent men from seeing the actual condition of our industrial affairs.

The relation of consumers to the producing classes is seen more clearly perhaps by making the retail dealers the representatives of all the producing classes. They exert the pressure by which the changes in objective values are effected and through which the distribution of surplus value is determined. Their direct contact with the consumers enables them to determine which articles can be raised in price and which must be lowered so as not to lose their market. Any increase in the subjective value of goods to consumers is first perceived by them; and other producers must exert a pressure on them to secure a share in the increase of surplus value which accompanies every rise of subjective values.

A question naturally arises as to the power of retail dealers to change the objective value of the commodities they distribute. Do they add a certain per cent. to each commodity they sell, or have they greater power to change the objective value of some commodities than of others? I think the latter question must be answered in the affirmative, and I shall use the following figure to illustrate my position.

Fig. VII



Suppose of two commodities, A and B, an equal quantity of each, *a m*, would be sold by the retail dealers if they were sold at cost, and that *a n* measured the excess of satisfaction above cost which the consumer receives from the first increment of each of the two articles. On the subsequent increments consumed, the excess of satisfaction is greater for the commodity A than for B—the line *n e m* representing the excess of satisfaction obtained from the various succeeding increments of the article A, and the line *n c m* the same excess for the article B. In this case the dealer could raise the price of A above its cost to a much greater degree than that of B. If he raised the price of both articles by the equivalent of *a f*, he could still sell a quantity of A equal to *a b*, while of B he could only sell the quantity *a h*. His gross profits for B would be increased if he reduced his profit on each increment to the equivalent of *a d*, and thus sold the quantity *a b*. For A, however, he would lose if he reduced his profit below the equivalent of *a f*.

The power of the dealer to raise the price of the articles he sells depends upon the direction of the curve between *n* and *m*. If the satisfaction derived by consumers from increased quantites of an article decreases slowly at first, and then quite rapidly as the point of satiety is neared, its price will be higher than if the satisfaction decreased more rapidly at first and more slowly near the point of satiety. Dealers will find it easier to get their profits from the first than from the second class of articles, and they will fix their prices accordingly.

If we pursue our inquiry a step further we will find that articles like A are usually the necessities or at least the comforts of life, while the luxuries usually resemble B. By luxuries I mean those articles that, except in small quantities, are not parts of the regular consumption of a people. When an article is first introduced the early increments give intense pleasure, but soon the pleasure falls off rapidly and large quantities will not be consumed unless the price is very low. The curve, therefore, resembles that of article B. In the case of a necessity like bread the satisfaction is reduced slowly until the point of satiety is nearly reached, then falling off rapidly. A rise of the price of bread will reduce its consumption much less than of an article that is more of a luxury.[1]

It would not be fair to take a case where bread has an absolute utility. It is the positive utility alone that I wish to measure. If we consume bread regularly in large quantities the satisfaction from the first increments consumed will be less than if it is consumed irregularly and in small quantities, but the subsequent increments in the first case will be much nearer the first increment in satisfaction than in the second case. The curve, therefore, that represents the satisfaction derived from the increments consumed will be different with different commodities, and the dealer will take advantage of this fact when he fixes his prices.

[1] There is an exception to this rule in luxuries which have a high time value. With a highly fashionable article a high price can be charged because the few who want it have an intense desire for it. After a short time a much lower price will yield to the dealer a larger gross profit.

The retail dealer, therefore, is in the same position as other producers. He cannot reduce the consumer's surplus, but he can change the objective value of certain commodities, thus increasing his share of the surplus value at the expense of other producers. If his monopoly were less complete other producers could change to a greater degree the objective value of their commodities, thus getting the part of surplus value now going to the retail dealers. The struggle of producers for higher profits affects objective values and the distribution of surplus value. The consumer's surplus is not affected because it is determined solely by subjective values.

XVI

Burdenless Taxation

Perhaps there is no part of political economy of which the theory is in such a state of confusion as is that of taxation. All kinds of arguments, regardless of their character, are thrown together, and the most opposing views are fashioned into one system. There is no separation of moral, political, and economic premises, while popular feeling and prejudice too often displace higher considerations. Any consistent theory must be based upon some one class of facts, which must be isolated from other facts in the way most fitted for emphasis. In the first place, it must be settled whether the society is military or industrial; next whether the state is active or passive; and finally, whether the system of taxation shall be based on moral, political or economic considerations.

If the state is military in its character and passive in its policy, it is a consumer of wealth and not a producer. Its expenses must then be met by taxation based upon moral or political ideals. If, however, the state is industrial in its character, and active in its policy, moral and political considerations may be excluded from taxation, and the attention confined to the economic effects of different taxes. The theory that taxation involves sacrifice and hence needs a moral basis, originated at a time when the state was a mere military organization for the defense of society from foreign foes, or to gratify national feelings by aggressive wars. It has a further premise that production is so inefficient that there is no surplus of the products of labor. The theory of the physiocrats corresponds to a state of society where taxation was a sacrifice. As the laborer had no surplus, his taxes deprived him of the results of his labor. Adam Smith destroyed the basis upon which the theory of the physiocrats rested, yet he clung to their theory of taxation as rigidly as he did to their theory that wages are determined by the price of food. His disciples followed his example because popular feeling sympathized with the current theory of taxation: Ricardo bravely fought public opinion as to the cause of rent and its effect on distribution, but he yielded to it in his theory of taxation.

In an industrial society the object of taxation is to increase industrial prosperity. An industrial society does not ask its citizens to sacrifice any-

thing for it. The State exists for the citizens, and not the citizens for the State. The test of a good tax is whether it creates more wealth than it destroys. If the courts, post office, parks, gas and water works, street, river and harbor improvements, and other public works do not increase the prosperity of society they should not be conducted by the State. Like all private productive enterprises they should yield a surplus. This does not, however, mean that every expenditure of the government should yield a surplus. The business of no private house will stand that test. The whole return from industry, however, should be increased more by state activity than it is decreased by taxation.

An analogy can be drawn between taxation in general and the revenues of the post office. When we affix a stamp to a letter, we think of the service of the post office in transporting it. We recognize the economic nature of the service rendered and the net benefit we receive. When, however, we pay a tax for water or for a park, we lose sight of the service and think only of the burden. We do not ask if we receive more than we give, but if we feel the loss of the dollar we pay more than our neighbor does. We wonder if we cannot get some millionaire to pay it, or if there is not some device by which we can deceive some one else into paying it. A workman would not demand that a stamp should be sold to him at a lower price, so that the cost of sending a letter would not take a relatively larger part of his income than it would from his rich neighbor; nor would he ask a private firm to make the cost of potatoes or cloth no more to him relatively than to a wealthier man. We have passed so far beyond this point of view, that even the thought of it would not occur to the purchaser. Why then should it have so much force when we pay for public improvements? Is the one question moral and the other economic, or is the difference merely one of association and education? It is undoubtedly of the latter kind; we associate government so firmly with the military rule from which our ancestors suffered, that we instinctively demand a moral and not an economic justification for its acts.

In saying that taxes should be taken from the surplus which public enterprise creates, I do not wish to affirm that those who make use of a given form of public service should pay the cost of it. It is often said that those who use canals, roads, courts, public water works and like advantages should pay for them. Place a fee equal to the cost on the use of each of its public works, and the general public will have no burden, and those who benefit by them must pay for them. This idea is crude, however, and does not correspond to the necessities of modern industrial life. The main benefits of public enterprise are indirect. The post office for example, renders its most important service in the commerce it creates through bringing different sections into closer contact. Canals create as much commerce for railroads as they do for themselves. Good streets and rapid transit enable a city to spread out over a larger area and thus reduce rents. Our cities could easily improve their streets and run the street cars free, out of the saving of rent that would follow these improvements. Good country roads

do not enable farmers to ask more for their crops, nor do public markets in cities enable dealers to charge more for country produce. Improved harbors, rivers and other aids to navigation, cut down the expenses of transportation, and have their greatest effect in the new regions they open up to commerce.

One end of taxation is to create competition. The Erie canal keeps down railroad rates, and takes from local producers in the East their rent of situation. Notice, for example, the fall in the price of farms through western competition. The well-paved streets of Paris allow cabs to compete with street cars. If American cities would make their streets as good, they would secure lower rates and better service from local transportation companies. Parks, sewers and schools, improve the health and intelligence of all classes of producers, and thus enable them to produce more cheaply, and to compete more successfully in other markets.

It is a great source of expense and annoyance to assess the cost of each kind of public service upon those who benefit by it. The State would act unjustly if it put the cost upon those who use public improvements. It would also create a burden for them, as they would pay for a service from which other citizens received an equal benefit. On the other hand, it would be more than human if it could determine, in the complicated conditions of modern society, the benefit that each citizen receives from each kind of public service. Any attempt in this direction would stir up the animosities of classes and individuals without securing the desired result.

Taxation should therefore be placed not on particular forms of prosperity, but on general prosperity. The State should not try to hunt up the individual who profits by each of the many improvements it makes, but should make taxation a reduction of the general surplus of society. All taxes come primarily from this surplus. This is the social point of view, as opposed to the individual point of view, which demands that each service have its cost attached to it. On the one hand, we can conceive of the State as standing in direct relation to each individual—perhaps as having a direct contact with him. Then each service has its costs, and the State must satisfy each individual, and prove that each service is greater than the cost. It bargains with each of its customers as any private firm would do. On the other hand, we can conceive of the State as a factor in production, and hence entitled to a share of the undistributed produce of industry. It has helped to promote general prosperity, and can demand a part of the surplus of society along with landlords, employers, capitalists and laborers. Like the capitalist, it advances a part of the funds which make industry possible, and, like the laborer, it performs part of the work. The whole produce of industry is divided into as many shares as there are agents in production, and each of these shares is then subdivided among the individuals who have through this means helped to extend production. The State gets one of these undivided shares which it must distribute among its agents.

When the State decides to erect public works or to assist education, it

takes a part of this surplus and turns it into new channels. Taxation is thus always a distribution of surplus, and never a sacrifice to individuals, unless the growth of taxation is greater than the increase of the surplus. When we decide not to tax we merely decide that other agents in production shall have a larger share of the surplus. Prices are not higher because of taxes. They take a part of the surplus revenue, and thus prevent a rise in the objective values of particular commodities where competition is least effective. Monopolies, whether natural or those of intelligence, raise prices as high as possible without taxation, and hence must bear taxes, for they can have no further effect in raising prices.[1]

The consumers are not affected by taxtation because, while prosperity continues, the marginal increment of consumption is not reduced, and the consumer's surplus will remain the same. The more rapidly increasing factors in production would lose their share of the surplus without taxation, and hence if it is appropriated by the State they have no additional loss. They would even gain by taxation in so far as the State used its funds to create new forms of competition. The various kinds of monopolies lose not only the share of the surplus taken by the State, but also find their remaining revenues reduced by the increase of general intelligence that results from State activity.

The burden of taxation rests where the benefits of improved production go. It falls upon the most slowly increasing factors in production. The objective value of their products would increase so as to absorb all of the surplus revenue due to social progress, if the State remained a mere spectator in the conflict of classes for the product of industry. In any natural distribution they have the advantage and secure the prize. When the State does not tax, it decides that the most static elements in society shall get the surplus.

We now have the premises upon which a system of taxation in an industrial society should be based, and from them the following maxims are derived, which should act as a limitation to taxation. The surplus of society is so large that there is no need of using any source of revenue to which a legitimate objection can be made from an economic standpoint. A State rich in revenues can afford to let the burden of proof be against it.

I. Taxation should not be placed on individuals, but on the sources of revenue. The increase of wealth, due to social progress, is the fund from which the State should draw its income. It should not seek to trace the results of each of its productive enterprises, but should recoup itself for all its expenses from the increase of productive power due to its actions. Its share should be taken from the undistributed income of society, and the remainder of the produce of industry should be left to distribute itself in a natural way. Let the individual keep what he gets, and thus avoid any appeal to moral or political principles of distribution.

II. The increase of taxation should be limited to the increase of produc-

[1] See Patten, *Rational Basis of Taxation*, page 13.

tive power. It is only possible for a society to continue in a dynamic state so long as the incomes of individuals are increasing. To absorb more of the produce of industry than could be obtained through the increase of productive power, would force society back to more primitive conditions, and thus reduce that prosperity which it is the duty of the State to promote. The State would then lose its purely industrial character, and would be compelled to base its claims for support on moral or political considerations.

III. Taxation should leave no one in a worse condition than it found him. It should not reduce the wages of classes whose standards of life depend upon objective conditions. This does not mean that the articles consumed by these classes should not be taxed, but if they are taxed, the State must see that the general prosperity is so much increased that these classes get, in higher wages or in better conditions for living, an equivalent for the tax.[1] Neither should taxation reduce the marginal increment of consumption. Any reduction in the variety of consumption will react on general prosperity, and thus make the tax a burden upon all producers.

IV. Taxation should favor new forms of enterprise and consumption. New industries need the aid of the State to overcome the initial difficulties to their development. The State can readily turn to these enterprises a larger share of the surplus of society, and thus make the interests of individuals harmonize with the interests of society. The State should also persistently encourage new forms of consumption. The inertia of consumers causes them to keep up their old habits until the pressure of necessity forces them to modify their consumption. Taxation, properly applied, would hasten changes which are inevitable, and keep the consumption of a nation more nearly to the possibilites of improved production. This taxation should not be based on moral grounds, but should have the increase of prosperity for its sole aim.

V. Taxation should have regard for vested interests. The State does not guarantee these interests, nor should it neglect to modify laws which conflict with the good of society. Yet, what it does in this way, should be done consciously, and by other means than taxation. To destroy a right to property which exists in harmony with law is confiscation and not taxation.

VI. Taxation should not be employed to remedy the inequalities found in society. These inequalities demand the attention of legislators, who should endeavor to discover the causes of these evils, and furnish an adequate remedy for them. Taxes must be levied to secure the funds needed to carry through reforms, which will bring a greater equality among the members of society. Such taxes are legitimate, but when imposed they should be of a strictly economic character. These taxes should be laid so as to impose the least burden on society, and to check, as little as possible, the general prosperity of society. As a long and bitter experience with money has shown that any endeavor to equalize the inequalities of wealth by changes

[1] See Patten, "Another View of the Ethics of Land Tenure," *International Journal of Ethics*, April, 1891.

in the monetary system injure most of all the debtor classes, so a like experience will show that schemes to equalize taxation, and make it a burden for the rich, result only in increasing the burden of the poor, and in exaggerating the differences between the classes in question. Taxation is a good machine to aid in the development of the poorer classes, and they least of all, can afford to have its efficiency destroyed by trying to make it perform functions for which it is not fitted.

XVII

The Margin of Production in a Dynamic Society

It has been customary to picture the field of employment as a series of increments arranged in the order of their productivity. It is assumed that the most productive increments are first brought into use, and hence the marginal increment being the least productive of all becomes the margin of production. Here no rent is paid, and all the return goes to labor and capital.

From the premises of the older economists this conclusion could be justly drawn. They regarded all laborers as equally efficient and all capitalists as equally active and ready to assume the risks of production. While these suppositions were true, the margin of production was open to all laborers and capitalists alike, and its productivity fixed their returns.

Under modern conditions, however, new complications have arisen. The ordinary capitalist has become timid, and hesitates about investing his capital in new enterprises. There is plenty of money to be lent on farm mortgages and other safe investments, but a scarcity of capital for improving land, or for opening up new industries. The laborers also lack the intelligence needed to make their work efficient in new enterprises. They do well enough in old and stable industries, but cannot become readily adjusted to new conditions. The new opportunities to labor appear under such complex conditions that they are missed by those lacking superior intelligence. At the present time the unskilled laborer never looks for the margin where additional employment can be found. He competes for the old familiar places and neglects the new possibilities.

In every progressive society, however, new enterprises must be undertaken to find employment for the additional population and the new capital. Men of greater intelligence must be found ready to assume the risk of these enterprises. They must have the insight needed to see where the margin may be extended, and the ability to adjust capital and labor to the new conditions in which they are to be combined. They need credit to gain the confidence of capitalists and executive ability to organize their workmen in an efficient way.

I do not mean to assert that the margin of production is only extended by production on a large scale. Often it is necessary, and usually some part of the work needed to extend the margin requires production on a very large scale. Many of the parts, however, can be carried out by small pro-

ducers, but never, under present conditions, except by those who possess pluck, credit, executive ability and other qualities found in men of intelligence. Those who extend the margin have these qualities now so lacking in many capitalists and laborers, and hence they have a monopoly from which the more static members of society are excluded.

The presence of cheap laborers, and of capital offered at a low rate of interest on safe investments does not indicate that the margin of production is low, and hence that society has nearly reached the limit of its development. The margin may be high in spite of these facts, and could easily be extended by men of intelligence. Low interest and wages merely indicate the relative scarcity of enterprising men. The safe investor does not want marginal investments, and the cheap laborer fails in his endeavor to find them.

There is, however, one way in which securely invested capital and cheap labor can yet extend production, and this outlet for them often creates a mistaken impression as to the location of the margin of production. In every industry there is considerable waste, and if interest is low and labor cheap this waste can be reduced. The cheap laborers can economize the materials used in production, and they can give a higher finish to the products of industry. Upon land they can prepare the soil more completely or furnish more fertilizers for it. In these and many other ways, needless to mention, they can economize the waste of production, and increase its products, but they never extend the margin of production. The margin is only extended by the utilization of new forces. Some new natural agent is brought under the control of man, through which old wants are supplied more easily, or new wants are created that permit a better utilization of the gifts of nature. Intelligence thus finds new opportunities for its exercise, while capital and labor are withdrawn from old industries, and find a better reward in the new.

The static conception of the field of employment must therefore be modified to represent correctly the characteristics of this field in a dynamic society. The new increments of employment are often better than those in use, yet there always remains the possibility of utilizing some increments poorer than any in use. There are, therefore, two margins—a margin of enterprise where men of intelligence may find employment with increased returns, and a margin of waste where labor and capital find employment at decreasing returns.

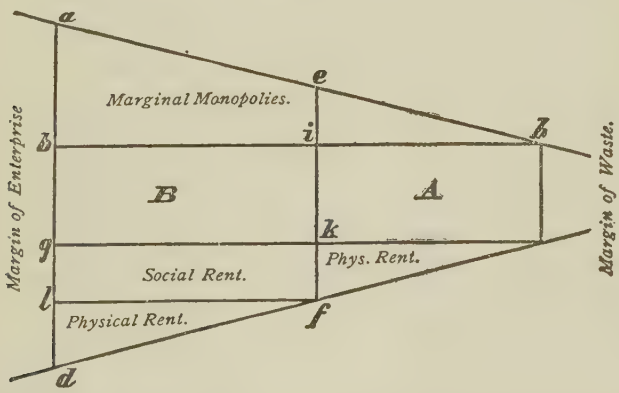
A lowering of the margin of waste takes place with every increase of the static tendencies in society. The margin of enterprise is neglected, and capital and labor strive for a place at the margin of waste. It thus seems to be the only possible avenue for the extension of production, and all theorists whose ideals are static make it the corner-stone of their system. With the growth of intelligence and the increase of dynamic forces in society, the extension of production takes place at the margin of enterprise, and then it becomes evident that while some capital and labor are always given employment at the margin of waste, it never affords opportunities for

the gradual growth of the field of employment. Safe investments and cheap laborers stand in a fixed proportion to the field of employment, but they check rather than aid the extension.

In any advanced society this margin of waste is relatively small, and will not offer additional employment to large quantities of capital and labor. The older economists seem to suppose that production might be indefinitely extended, if interest and wages should fall gradually. The quantities of labor and capital that remain idle during periods of depression show that this supposition is incorrect. Without new industries some additional laborers can find employment at the margin of waste, but the number is so small that the ranks of the unemployed rapidly increase as soon as the progress of society is checked at the margin of the enterprise. The intelligence needed to see the margin of enterprise, and the combination of industrial qualities needed to utilize it, are essential elements in the prosperity of society, and, without men in whom these qualities are combined, society would soon sink into a static state, and wages would give to laborers but a bare minimum.

These facts of the present industrial world give rise to a new class of monopolies, which may be called marginal monopolies. The few who have the intelligence, pluck and credit needed to utilize new natural forces or to turn consumption along new channels, have a monopoly as definite as the landlord had in the early stages of progress, and they can demand a monopoly share in the produce in return for their services. Low interest and low wages do not indicate a low margin of production. They merely show that capital and labor are increasing more rapidly than intelligence, and hence that objective values must change so that those who possess the latter can divert the surplus of society from other classes into their possession.

FIG. VIII



The diagram represents the field of employment of a dynamic society with its increments so arranged that those at the right require less intelli-

gence on the part of the laborers, and less risk on the part of capitalists than those at the left. The increment at the extreme right, *b c*, will then measure the return where capital is safest and labor least intelligent, and the other increments of employment will have their return measured by lines from *a b* to *c d* parallel to *b c*. It will be supposed for the sake of simplicity that as the intelligence needed to utilize an increment increases, the aid that nature gives to production also increases. Whatever tends to increase intelligence and enterprise tends to extend production farther to the left where the return is greater, while cheap labor, and capital seeking safe investments, tend to push the margin farther to the right where the return is less. Then *a b* and *c d* will be two lines gradually diverging to the left, where the true margin of production lies, and converging at the right where the margin of waste is situated. Under these conditions the area *b c g h* would be the largest amount that cheap labor and safe capital could receive. The area *a b h* would go to superior intelligence and enterprise, while *c d g* would become rent.

If we suppose that the society is composed of two classes, A and B, the latter having the greater intelligence and enterprise, then the class B will utilize the increments of employment to the left of *e f*, and the class A those to the right; if the class B did not exist the field of employment would be limited to the area *b c f e*, because the class A lacks the qualities needed to bring into use the field of employment to the left of *e f*. When, however, the area *a e f d* has been opened up by the class B, competition between the two classes can begin within this area. Much more enterprise and intelligence are needed to open up a field of employment than to utilize it afterwards. The new natural forces can be utilized by class A, but as they have not the intelligence of class B they would, if employed, produce less than class B by the area *a e i h*. This area is safe to the more intelligent class, and often enables them to withstand the competition of the lower class which seeks to displace them. Competition with class A, however, would reduce the return of class B by the area of *g l f k*. If they were isolated from class A, the rent they pay would equal the area *d f l*, while when in competition with class A their rent would equal the area *d f k g*.

The area *d f l* would therefore be physical rent, as it arises from differences in the natural agents used by class B. The area *l f k g* would be social rent, because it is the result of competition with cheaper and less intelligent laborers. The first kind of rent is due to physical differences, the second to differences in men. Superior workmen have a protection from cheap labor equal to the direct results of their greater intelligence. While they have a protection in this part of their surplus, they have no protection from those who have possession of natural resources. The latter class can now secure a social rent in addition to the physical rent they formerly received, and thus take from the producing classes the benefits of superior natural resources.[1]

[1] Patten, *Economic Basis of Protection*, Chap. V.

XVIII

Dependent Classes

From the objective standpoint of the older economists the gifts of Nature were emphasized as the great source of the surplus of society. The help which Nature gave in agriculture was declared by the physiocrats to be the sole source of a net revenue. Adam Smith overthrew this doctrine by showing the surplus which society derives from the division of labor and the use of capital. The knowledge of these new sources of net revenue, however, did not modify the objective way in which economists looked at the processes of production. Capital was viewed merely as a collection of material objects useful to further production, and the division of labor as an objective relation between producers. With the discovery of the law of rent and of diminishing returns, the doctrine of the physiocrats obtained, in a modified form, a renewal of life. While it was admitted that a large part of the surplus of society came from the division of labor and the use of capital, it was claimed that the gradual lowering of the margin of cultivation took this surplus from laborers and capitalists, and gave it to the landlords. Under these conditions, to be shut out from land means to be shut out from prosperity, since the return for labor at the margin of cultivation gives but a bare existence.

From a subjective standpoint the emphasis is changed from the gifts of Nature and the differences in land, to inherited mental qualities and differences in intelligence. Efficient production results from the possession of certain mental qualities rather than from the possession of superior natural forces, and the laws of distribution depend upon differences in intelligence more than upon differences in land. The causes of poverty likewise assume another form. Viewed objectively, the struggle of society is a struggle for land and the gifts of Nature. The margin alone is free, and every reduction of it takes from the landless their share of the gifts of Nature, and the results of social progress. Viewed subjectively, the lower classes are shut out from the margin of enterprise because they lack those mental equalities needed to extend production into new fields. Those opportunities for employment which require the least intelligence are first utilized by society, and in the successive stages of its development the field of employment is gradually extended to those opportunities for employment which require more intelligence and a greater number of mental qualities. These new opportunities are better opportunities, but they require a higher type of man to utilize them. As the margin of enterprise rises the lowest classes in society are gradually shut out from the margin, and they are restricted to the older and more mechanical industries. In these occupations they must struggle for existence without that relief from competition which those secure to whom the margin of enterprise is free because of the possession of better industrial qualities.

As soon as the intelligence of any class in society becomes less than that needed to utilize the field of employment at the margin of enterprise, this class becomes a dependent class in society, and a hindrance to further progress. Its utility to society is less than what it costs society. Competition will always give to a man a sum equal to what society will lose if he ceases to produce. Any productive agent is sure of getting all that its product is worth to society. If competition does not give to a given class of producers enough to live from, it is because the marginal utility of the articles produced is less to society than the cost of supporting the class in question. Left to the working of natural law, this class must die out, yet in society such classes often exist in large numbers, because of the sympathy that society has for human suffering, and the laws that are enacted to ward off the full effects of competition. They live and increase in numbers, not because of their utility to society, but because a part of the surplus of production is given to them by society. Some disposition must be made by society of the surplus of modern production, and if the sympathy for poverty is strong, and the laws subordinate the interests of society to those of particular classes, a large part .of this surplus may be used up in the vain endeavor to make prosperous certain classes which lack the subjective qualities needed to make them valuable members of society.

During the last century it was generally believed that pauper classes were an advantage to society, and that national prosperity was promoted by an increase of their numbers. We now see the error of this opinion, but we have not advanced far enough to see that cheap, ignorant laborers are worth less to society than they cost. They are doubtless a source of profit to individual employers, but society must give to them a part of its surplus. The balance between society and a class may not be the same as that between particular classes of society. The cheap goods produced by cheap labor are advantageous to individuals whose incomes depend upon dear goods, a part of whose value is rent. Cheap commodities mean dear food and a higher value of articles not subject to competition. A change of objective values adds to or takes from the prosperity of individuals and classes, but it never adds to the prosperity of society. An increase of subjective values alone will add to the welfare of society, and to these values no individual can add who costs society more than the value of the marginal utility of the commodities he produces.

The loss that society endures through the dependent classes is not limited to what society gives them above what society receives from them. At the same time that they force society to give up to them a part of its surplus they also force society to give up another part of its surplus to landlords as rent. The main element in their consumption is food, and the increased demand for food which they cause, raises rent on land. The variety of their food is also less than that of the more intelligent classes, and thus their demand for food causes the land to be used for crops for which it is not best fitted. On the one hand, cheap labor increases the subjective cost of production,

and reduces the surplus of society; and, on the other, it gives a larger part of the reduced surplus to the landlords and the dependent classes, whose interests are not in harmony with those of society.[1]

The agitation for the nationalization of land is based on the fact that a large part of the surplus of society goes to landlords. The services of the landlords in promoting production, it is claimed, are not so valuable to society as the surplus that society gives up to them. An important doctrine has by this agitation been brought to the public attention, but before a correct decision can be reached on the premises, it must be discussed in a broader way. If other classes than the landlords absorb the surplus of society, they, as well as the landlords, must have their claims to this surplus investigated. As long as the intelligence of mechanical laborers is less than that needed to extend the margin of enterprise, they belong to the dependent classes, and must be classed with the other static elements in society that check its progress, and absorb its surplus. While cheap, ignorant laborers are really "pauper" labor, and must receive a part of the surplus of society in order to exist, the primary agitation of society should be directed against them because they not only absorb the surplus, but increase the part of surplus which other static classes receive, although they derive more benefit from society than they give to it.

XIX

The Imputation of Utility

In their theory of value the Austrian economists have emphasized complementary goods. For the production of a given commodity, say a coat, a number of other articles not present goods—cloth, thread, needles, etc., must be used. These articles are complementary goods, whose values are determined by the value of the coat produced by their aid. The question naturally arises under these conditions: what will determine the value of each of these articles which gets its value from the joint product?

The same problem presents itself in a changed form in production. Land, capital, and labor are united in the act of production. The results of the three productive agents are commingled in the joint product. Of this product what part shall we impute to each of the necessary factors? To determine the justness of the distribution of wealth in a given society, we must in some way solve this problem.

This problem also arises in the consumption of wealth, and deserves especial attention. The pleasure we get from a given article is not a unit that can be measured by itself. The satisfaction derived from a dinner is not the sum of the pleasures we would get by consuming each of the articles separately. The joint utility may be much greater than separate utilities if the articles are harmonious, or much less if they are not. Also the utility of a house or of a suit of clothes is not the sum of the utilities of their com-

[1] See *Premises of Political Economy,* Chap. V.

ponent parts enjoyed separately, but quite another sum depending on the relation of the parts to one another.

The imputation of utility to the various articles which form a complement in consumption is distinct from the theory of imputation in production.[1] In the first we seek to determine what part of the utility derived from the joint consumption of several articles shall be imputed to each of them. In the second, we seek to find the service rendered by each agent in the joint act of production. The first problem would be of no practical consequence if the utility of the joint consumption of several articles always equalled the sum of the utilities of the several parts consumed separately. It becomes a vital problem, however, when it is recognized that the joint utility is often double the sum of the utilities of the parts consumed separately, and that we often impute utility to articles that cause pain when consumed alone. Suppose that in isolation the first increment of meat would have a utility of 7 units, potatoes 5 units, bread 3 units, coffee 4 units, cake 6 units, while salt would be a cause of pain, and that their joint consumption would create a utility of 40 units. To which of these articles shall we impute the 15 units created by the joint consumption?

Though the solution of this problem belongs to psychology, it presents itself under such peculiar conditions in economics that economists, not content to take the partial solutions offered by other investigators, must investigate it for themselves. To Bentham are due the familiar laws of measuring utilities, upon which Jevons has based his economic theories. It must be remembered, however, that when Bentham devised his theory of utility, he had a system of morals in mind; and in morals the imputation of utility is so simple that it can be neglected. We attach all the consequences of an act, whether evil or good, to the act alone. The conscious act is an indivisible whole, while the results are many. We need, therefore, but to count up the pleasures and pains following from an act, and get their sums and the differences. The net result must be ascribed to the act, and the solution of the question is not complicated by other problems.

While in morals one cause produces many distinct utilities, in economics many distinct causes unite to produce one utility. The laws of Bentham, therefore, must be greatly modified to apply to the imputation of utilities in economics. A few of these laws I shall give, since they are of especial importance in determining the standard of life.

I. *When an article becomes a part of a complement of goods in the standard of life, we impute to it a utility equal to the difference between the total utilities of the complement with and without the article.* In accordance with this principle we attribute to the new articles in the standard of life a higher utility than to those long in use. Our measure of the utility of new articles is definite, and we are conscious of the nature of the satisfaction that comes from their possession. This principle also causes us to estimate too highly the utility of the separate articles composing a complement. The loss of utility resulting from the absence of each article in turn

[1] See Wieser, *Der Natürlische Werth.*

would in most cases aggregate a much greater sum than the total utility of the complement. Therefore, we must correct our estimate based on this law by some of the other laws influencing the imputation of utility.

II. *When the number of the complements into which an article enters increases, we impute more utility to it.* In our diet wheat bread, potatoes and meat, have much utility, because they can be prepared in many ways, while corn, cabbage and bananas, which we consume in but few forms, have a low utility. Sugar has great utility because of the great variety of ways in which we find it pleasant. Liquor and tobacco to primitive men at least are other examples of the law. A liquor tastes well to a person well or sick, hot or cold, and in a great variety of forms. Most of the luxuries are of the same class. The associations are all pleasant, and their effects are cumulative.

There is another class of goods following the same law which, for lack of a better term, I shall call public utilities. I mean pleasures which are not exclusive, and can be enjoyed by different persons at the same time. The more we see of parks, museums, pleasant streets, fine houses, and places open to or seen by the public, the more urgent does our desire for them become. Good air or pure water to a primitive man excite no feeling, but their associations are now so many and pleasant that the higher types of men are willing to pay well for them. The growing desire for cleanliness affords another illustration. As we make it an element in a greater number of complements, our love for it increases until it is so strong that we strive to make it an element in every complement.

III. *When the disagreeable associations of an article increase, we change the imputation of utility from it to the means by which the disagreeable association is prevented.* When the appetites and passions are strong the mere gratification of sensual desires gives keen pleasure, while the conditions under which the desire is gratified are easily overlooked. The gradual reduction of these sensual desires brings the consumption of men more under the influence of psychological conditions, and disagreeable associations attach themselves to many articles reducing their utility, unless they become part of a complement of goods, through which these associations are avoided. We thus impute more of the utility of clothes to their form and color and less to their warmth; more of the utility of food to the manner of its preparation and less to the articles themselves; and more of the utility of a house to its furniture, ornamentation and location, and less to its material. A great multitude of associations come in to modify the primary pleasures of civilized men, while to the articles producing them is imputed the greater part of the whole utility derived from each complement of goods.

IV. *Articles for which there are substitutes are estimated at their separate utilities.* We change our imputation of utility as soon as a substitute is found for one article in a complement of goods. To the other articles of the complement we now give more of the total utility of the complement. Cotton and wool in many respects satisfy the same wants. Merely to be warm and comfortable creates little satisfaction. We can get that in many

ways. The gratification derived from our apparel is not imputed to articles keeping us warm, but those that serve other ends. Fat meat has lost in utility because so many other articles serve the same ends. Lean meat, however, has risen in utility because there is no substitute for it, and we impute to it more of the total utility of the various combinations it enters. Formerly liquor was the only complement to most of the foods in common use. They were not satisfying without it. It is now losing its utility because sugar is in many cases a substitute for it. Many sweet articles serve this end, and hence we are beginning to impute less utility to liquor and more to other articles of food for which there are no substitutes. It is also well known that tobacco and sugar are not harmonious, and cheap sugar, therefore, is likely to lower the utility of tobacco as well as of liquor.[1]

V. *When the source of utility is uncertain we impute it to the articles with the greatest utility.* It often happens that the sum of utility derived from a complement increases without new articles coming in. Some substitute for an article may also be found or some disagreeable association may attach itself to it thus, lowering the utility we attribute to it. In these cases and in others of their class we impute the utility not otherwise determined to the articles having the greatest utility. If a man recovers suddenly from an illness he attributes his recovery to some medicine, article of diet, or form of exercise of which he is fond. An unexpected pleasure will always be attributed to sources with which our greatest pleasures are associated. If a dinner proves especially satisfactory we attribute our feelings to some favorite diet or beverage. In this way the strong pleasures tend to grow at the expense of the weak.

VI. *Changes in the imputation of utility are retarded by the static classes whose standard is not rising.* If there were no lower classes we should impute a less utility to the necessities of life and a higher utility to the comforts and luxuries that enter into the various complements of goods. The consumption of the lower classes is largely of food and products that create a strong demand for land. The price of food must therefore remain high to check the rapid increase of their numbers. If the higher classes do not offer the same price for food they are displaced by competition. The lower classes fix the limit below which the utility imputed to food by the higher classes cannot go. Thus they are prevented from imputing high enough utility to new articles to cause them to become a part of the standard. The utility we impute to an article must at least equal its cost. Therefore what prevents us from attaching a higher utility to new articles tends to keep them out of the standard.

The following table will help to make my meaning clear:

	A	B
House	7	9
Meat	5	4
Bread	3	2
Clothing	3	4
Books	0	3
Fruit	0	1
Music	0	1

[1] See Patten, *Consumption of Wealth*, page 20.

Let A and B represent two competing classes of which B is the more intelligent. The income of the members of class B is one-third greater than that of class A, and both classes are supposed to use their entire income to purchase the articles in the list. The figures indicate the relative utility that each class would impute to the article if its members were a society by themselves. Music and fruit are the new articles having just entered the standard of class B, and will be dropped out if its consumption must be curtailed. While their income is represented by 24 units, and they impute the utility of each article as given in the table, these new forms of consumption can remain a part of the standard. When, however, they are placed in competition with class A they must impute more utility to meat and bread, or the latter class will secure all the food. Therefore class B must leave music and fruit out of their standard and remain static until some new social change increases their income.

VII. *The static classes in society tend to impute any increase of utility to their strong pleasures, while the progressive classes impute it to the new articles in their standard of life.* This law is an inference from the preceding ones. Where no new elements enter the complements of goods, social changes increasing utilities cause the static class to attribute this new utility to the articles with the highest utility. The progressive classes, however, create new complements or enlarge those now in use, and thus tend to attribute less utility to the old articles and more to the new.

VIII. *We impute to each economic good a subjective cost equal to its objective value.* No one estimates his costs as less than the objective value of the goods he produces. He may see that his neighbors or the members of another class are wrong in the cost they impute to what they produce, yet he finds a ready excuse for the same act in his own case. Pain can be attributed to any set of circumstances or to a series of causes in turn. A person can also impute to himself a pain his ancestors bore. He associates them so closely with himself that he justifies his income through their suffering as though it were his own. In this way there is no end to the amount of cost that individuals and classes can pile up to magnify their own evils or to offset any claim society can make against them. Carey's method of disproving the existence of rent is a good example. He takes first the cost of opening up a locality, adding to it the cost of improving the land, then the cost of the roads and bridges, then of schoolhouses and churches, etc., until he has a sum that exceeds the possible value of the land. In the same way all kinds of bodily pains may be attributed to labor, though they are felt long after the labor is performed. No matter how large the income, it is always possible to aggregate a sum of pains equal to it and to associate them with it. Objective values are so definite and the cause of pain so indefinite that producers go from one commodity to another and impute to each of them enough pain to make costs and value identical, unconscious of the fact that the same pain may be included in the costs of many different articles.

When the classical economists assumed that the cost of production always equalled the value of commodities, they acted upon a psychological principle

and not upon an induction from industrial facts. They needed no proof for a law according to which every one acted. It is only through the growth of social feelings that we see the error of the primitive method of imputing costs and hence become willing to use a more objective standard in measuring them.

XX

The Standard of Life

In discussions relating to the standard of life two opposing views are current. It may be held that high wages come before a high standard, or that the high standard is the cause of high wages. An increase of manufacturing activity raises wages, and if the period of activity endures for some time, the workmen become so accustomed to the new standard that they retain it permanently. From the first point of view, a discussion of the standard of life is supplementary to the theory of production and distribution. If more is produced, or the product is more equally distributed, the standard rises, but it cannot rise if neither of these causes acts in its favor. The causes that fix the standard are thus objective to the individuals or classes interested, and they cannot influence it except by increasing production or by some organization that will alter the distribution of wealth. The wage fund theory, for example, gives to laborers no influence in fixing their wages except in the slight control they have over their numbers. To discuss the standard of life in this or any similar way is simply to go over again the theories of production and distribution, and make a few inductive applications to the condition of workmen in particular nations or at a given time.

If we recognize, however, that a rise in the standard of life precedes and is the cause of the rise in wages which follows, the basis upon which the standard of life rests must be changed from the phenomena of production to those of consumption. It now becomes possible to proceed deductively from the laws of consumption, making the laws regulating the standard a part of the theory of consumption. It will be necessary, however, first to make some preliminary distinctions as to the different classes into which society is divided. To see how the laws of consumption regulate the standard of life, the classes of society whose standard is determined directly by their consumption must be isolated from other classes whose standards are determined partly or wholly by objective conditions. It is not possible to affirm that a high standard comes before high wages unless producers have some power to alter the conditions of production. They must have the intelligence and enterprise needed to extend production into new fields, though they may lack the motive to do it until the increased urgency of new wants forces them to work longer or more intelligently.

From this standpoint society is divided into three classes. First, the enterprising or higher classes, whose standard is primary because it depends directly upon their consumption; second, the intelligent laborers, whose

standard is secondary because it depends partly upon their consumption and partly upon their relations to the enterprising class above them; and third, the mechanical laborers, whose standard depends wholly upon conditions objective to them. We shall confine our attention at first to the higher classes, who can utilize new opportunities for labor when the intensity of their wants increase, and hence are able by themselves to maintain a higher standard of life. The causes that determine the intensity of wants have already been discussed as a part of the theory of consumption, though a few of them need additional emphasis to bring out more clearly their connection with the standard of life.

The first condition of a high standard is the reduction of primitive appetites and passions. So long as a few primitive wants are intense the standard will be limited to the few articles which gratify these appetites. The relative urgency of other wants can only increase when the primitive wants sink to a level with the new desires of civilized life.

A second condition lies in the economic order of consumption. When commodities have a cost those articles are placed first which have the highest excess of utility above cost. Any change in the cost of producing articles changes also the order in which they are consumed. Many articles must have about the same excess of utility before a high standard of life becomes a possibility. The cheapening of articles that already have a relatively low cost would tend to lower the standard of life. It is raised only by reducing the cost of relatively dear articles, so as to increase the number of articles having the same relation of cost to utility.

A still more important condition relates to the increase in the number of complementary goods. The primitive man has a strong appetite and enjoys each of his crude pleasures regardless of the conditions under which he consumes them. Each pleasure is independent of the others, the whole consumption of each individual being made up of isolated parts which appeal to some one of his feelings or senses. As soon, however, as the primitive appetites and passions are weakened, the pleasure derived from any article depends more or less completely upon the mental associations which accompany its consumption. A patch on the coat of a primitive man does not decrease the pleasure he derives from it. He only associates warmth with coats, and the patch does not affect this quality. To the more civilized man, the patch will destroy all the pleasure he derives from the coat, even making it a source of pain. Articles of diet that are sources of great pleasure to primitive men are often sources of disgust to civilized men if they are not served in connection with new articles that have pleasant associations. A hat or a pair of gloves which by themselves would be to their wearers a source of pleasure become a cause of pain when they do not harmonize with the other articles worn.

There is little need of further illustrating this familiar principle, but an important application of it may easily be overlooked. As the associations which we have with a given group of articles increase, it becomes more important to avoid the disagreeable associations and to receive the full

effect of those that are agreeable. The articles that prevent the first class of associations and secure the second, acquire a utility which they could not have by themselves. We transfer the utility from the necessities of life which, to the primitive man, are by themselves sources of great pleasure, to the articles that must accompany them to avoid bad associations or to acquire good ones. If the utility of the whole wearing apparel on a given occasion be 100 units, and a pair of gloves of a particular shade were needed by a fashionable person, he might regard the utility of the gloves as 50 units or equal to the utility of all the remaining articles without the gloves. At a Thanksgiving dinner we give to cranberries a part of the utility which a primitive man would give to the turkey, to the sauce what he would give to the pudding, and to the table decorations what he would give to the food.

As an effect of these associations a large number of articles acquire a utility which they could not have to primitive men. Luxuries are articles that the civilized man must have to keep disagreeable associations from destroying the utility of necessities. Hence as civilization progresses necessities must relatively lose in utility so that the luxuries may increase in utility. If we wish a pleasant dinner or an attractive costume, we must first find out the cost of the luxuries, and the rest of the total utility can be imputed to the necessities. The last article that enters a complement of goods has often the greater part of the utility of the group centered in it. The new article is a necessity to the men whose complements of goods is increased, but it is a luxury to the man with a smaller complement of goods.

Therefore, articles enter the standard of life with a high value. They become a part of the standard not because the income of consumers is increased so that they can consume articles that have to them a lower utility, but because the new articles have transferred to themselves a part of the utility which formerly was imputed to the articles already a part of the standard. If the expense of the new standard is greater than the old the consumer will not throw out the new articles, but will readjust his whole consumption or strive to increase his productive power by extending production at the margin of enterprise. The new articles are fixed points of high utility about which his whole consumption is grouped. Because of them he becomes dynamic in his consumption and progressive in his production.

The three main conditions for increasing the standard of life have now been made plain.[1] First, the strength of the primitive appetites and passions is reduced; then the economic order of consumption is so changed that more articles have the same excess of utility; and finally the growth of the number of groups of complementary goods compels men to impute a large part of the utility of the whole group to the last articles that enter it. When the articles composing the standard of life do not have the same relation of cost to utility, there is a tendency to change the utility imputed to the various articles which are parts of complements, so as to make the excess of utility the same.

[1] See also Section VI of the *Consumption of Wealth.*

In the following tables the differences in the conditions determining a high and a low standard of life are manifest.

	Liquor	Potatoes	Tobacco	Wheat	Beef	Coffee	Sugar	Rice	Mutton	Fruit	Fish	Decorations
	7											
	6	6										
	5	5	5									
I	4	4	4	4								
	3	3	3	3	3							
	2	2	2	2	2	2						
	1	1	1	1	1	1	1					
					5		5			5		5
	4				4		4		4	4	4	4
II	3	3	3	3	3	3	3	3	3	3	3	3
	2	2	2	2	2	2	2	2	2	2	2	2

Table I shows the excess of utility derived from the consumption of articles which form a low standard of life, and table II shows the same for a high standard. In the first case a large number of articles have no excess of utility, and hence do not form a part of the standard. In the second case the various articles have so nearly the same excess of utility that the one will not be preferred to the other. The marginal increment of consumption rises to two units from lack of time to produce more. The tendency, therefore, is to increase the efficiency of production, or to make economies in consumption, so as to retain all the articles. If hard times come and the income is reduced, the increments of consumption which have an excess of two units will not be consumed; but no article will be dropped from the standard, nor can there be any change in it until the conditions of consumption are modified.

In this argument, making the standard of life a part of the theory of consumption, and not of production, I have considered only those classes whose standard is primary. They have the intelligence needed to extend production at the margin of enterprise when the old conditions will not allow them to satisfy their new standard. The higher standard in their case precedes the increase of income. They work more efficiently because of the increase in the intensity of their wants.

In the skilled workman whose standard is secondary, the primitive appetites and passions are stronger, the number of groups of complementary goods is smaller, and pleasure depends more upon sensation and less upon association. Their standard, therefore, is determined more fully by the economic

order of their consumption than is that of the higher classes. Still the subjective elements enter quite largely into the causes which fix their standard of life, enabling them to resist many tendencies that would otherwise lower it. The primary standard of the higher classes also exerts an important influence in this direction. It keeps a higher ideal before the workmen and enables them to participate in many of the enjoyments of a higher civilization, which otherwise would be out of their reach. They have some power to extend production by moving from one part of the field of employment to another, and to some degree can modify their consumption so as to utilize their resources more fully. In these ways they can resist any fall in wages, but are not likely to raise their standard, thus securing higher wages until pressure is brought to bear upon them by a rise in the standard of the classes above them.

The merely mechanical laborers can hardly be said to have a standard, as they are really dependent upon society, and only exist because society gives them a part of its surplus. Of this class it is true that an increase of wages must precede a rise of their standard. Yet changes in the economic order of consumption are gradually creating conditions that will give them a greater variety of consumption, thus erecting a subjective barrier to a fall in wages. While these causes are slowly at work, they are protected by objective conditions so long as society remains dynamic. The increase of the productive power of the higher classes, the growth of capital and commerce, and all the other elements promoting general prosperity, create employment for them and, except under peculiar conditions and during times of great industrial depression, enable them to resist a fall in wages. Yet these objective conditions, however favorable, cannot be relied upon to raise their standard of life. This can come only through causes affecting their consumption; and there is little hope of progress in this direction until the subjective conditions that maintain the standard of the higher classes exert more influence upon the lowest classes of society.

XXI

The Theory of Production

It may surprise the reader to be told that the theory of production is one of the most neglected portions of political economy, in view of the fact that the word is used so frequently and almost every economic treatise calls its first part by this title. Yet but few of the subjects treated under this head belong to the theory of production, and if they do they are still viewed primarily from the standpoint of distribution. Even in Adam Smith the latter conception predominated, while the revolution in economic theory caused by Ricardo took from production what little emphasis Adam Smith gave it. Ricardo did not write upon production at all, and if his followers had been as frank, and had kept in the theory of distribution all of the theories that really belong to it, there would have been much less confusion of ideas.

In these theories the section on the division of labor is all that really belongs to production. The remaining sections deal either with the hindrances to improved production or clear the ground for a justification of interest and rent. Of the first part the law of diminishing returns is the cornerstone. Yet this law does not explain how production is extended; it merely reveals the necessity of an unequal distribution. The theory of capital also, does not show how capital acts in production. It simply shows that capital is an essential element in production, and hence its owner can secure for himself a share in distribution. And to justify him in taking this share capital is made a species of labor, or an analogy is shown between the sacrifice of the capitalist and the efforts of the laborer.

It is one thing to show that land, labor and capital are sources of revenue and essentials of production, and quite another to show how they aid in extending production. Sources of revenue are merely the essentials of production which are limited in quantity. Water is as much an essential of production as land or capital, and when limited in quantity it becomes a source of revenue. Yet in such a society to show how the lack of water hinders its progress and reduces the incomes of workmen would not help one to understand the processes of production nor indicate how they might be improved.

Production—it must be kept in mind—is the increase of utilities. Many utilities are the immediate product of natural forces, but if the sum is to be increased man must in some way direct the action of natural forces. Efficient production secures the coöperation of more natural forces, and prevents the waste of energy that would result if there were no intelligent direction. The theory of production must show where this greater cooperation and economy of natural forces is possible, and what qualities in men will create in them a desire to make a better use of Nature.

The concept which men have of production must vary with their civilization. To a primitive man, in his isolated state, labor and natural objects are the essentials of production. The articles of which he makes use are not thought of as the results of natural processes. He finds about him an aggregate of objects whose utility can be increased by labor, and hence he regards labor and not nature as the producing agent.

At a later period when government becomes firmly established, and population increases so far as to cause a struggle for existence, the concept of production changes. Three factors in production are now recognized—land, labor and capital. This change is not due to the introduction of a new factor (capital) but to a new standpoint from which production is viewed. Land is not an agent in production, but as the possession of all natural forces is given by society to the owner of land, the possession of land carries with it the control of all natural forces. Nor can capital itself be regarded as a productive agent. It is made up solely of inert materials which have no utility except as they are changed into some other form through the agency of man or nature. Yet the possession of these objects carries with it the right to share in the produce of industry, and hence we assume

they have a productive power which belongs only to natural forces or to the men who direct them.

As the struggle for existence causes men to think of land and forget the natural forces which the owner of land controls, so it also leads them to think of capital and forget the man back of it who makes it efficient. The material is emphasized while the mental qualities are overlooked. There is some justification for this confusion in the early stages of industrial progress, when the capitalist possesses all the mental qualities needed for improving production. The capitalist and his capital are intimately associated in the public mind. He is the active and controlling factor in production, and it matters little whether the income he derives from his industry be said to come from his labor or capital.

In a static economy the theory of production may be neglected because an increase of production is not contemplated. It is natural, therefore, that distribution should become prominent, and that land and capital should get the emphasis which ought to be given to the natural conditions and mental qualities aiding production. But in a dynamic economy this neglect is impossible. If production is to be kept progressive, the causes of productive power must be investigated. The aggregates which are included under land, labor, and capital must be broken up, and the elements readjusted into a new system. We must overlook the channels through which society receives its income, and seek its sources.

This investigation involves also a change from an objective to a subjective standpoint. We are apt to associate labor as an agent in production with the laborer, and decide that the former is the aggregate contribution of the latter. Viewed objectively, the laborer is wholly engaged in putting things in motion, and hence his muscular power receives sole attention. The mental qualities that direct production we associate with the capitalist, and an investigation of them is isolated from our conception of the laborer. But from a purely subjective standpoint, we have nothing to do with the laborers and capitalists as distinct classes. Certain mental qualities aid in the production of wealth, and we must isolate the qualities to find how each of them assist production, and not the men who possess them. With the progress of society new qualities become active and production is forced into new channels.

As the psychical elements of a race improve, intelligence becomes a more conscious agent in production, muscular activity losing its relative importance. Putting things in motion still continues a necessity, but the increase of production depends not so much on the quantity as upon the direction of the motion. Shall iron be put in motion towards a forest or towards a coal mine? Shall cotton and wool be put in motion towards a spinning wheel or towards a modern factory? Shall the seed be put in motion in April or July? To decide these questions the subjective and not the objective conditions of the producers must be known.

After each psychical advance in a race the line of least resistance in production changes, the mechanism of its production being modified to enable

it to follow its new inclinations. All the psychical elements of human nature lie back of the capital and the muscles we see, and there are as many agents in production as there are distinct mental qualities exercised by producers.

From this standpoint the theory of production must consider both the active mental qualities of producers and the conditions of Nature which tend to develop higher intelligence in men. If the laws of Nature were such that men of a lower type could avail themselves as fully of natural forces as their superiors, the latter would have no advantage in the struggle and there would be no tendency for the psychical motives to change in a way that would encourage better processes in production. Improvements in production always indicate a change in race psychology, and that a higher type of man has been utilizing some natural force out of the reach of the lower types. With some new faculty active, the relation of a society to its environment is changed, and production is modified in a way that demands less labor to secure the desired results. There are many natural conditions aiding the higher races, but the following are so prominent that they require attention.

1. The Intermittent Action of Nature. The changes of seasons create opportunities to utilize natural forces of which immediate use must be made, or the opportunity is lost. The seed must be put into the ground in the spring, and the grain harvested in an equally short period in summer. If physical motives do not prompt individuals to hold in check other desires while they utilize these periods, they lose the most available means of increasing production. The farmer who associates sunshine in August with his hay crop has different psychical premises and creates a different mechanism of production from his neighbor who associates the same sunshine with a visit to a circus, or an opportunity to fish or hunt.

2. Latent Forces. The higher races have a potent advantage in the latent forces of nature. Of these coal is a typical example; but the increase of intelligence is bringing other cases into prominence, either where Nature has stored up forces that man can use, or where man in imitation of Nature learns how to store up forces for his future use.

3. The Localization of Natural Forces. The soil, heat and mineral resources are not equally distributed. The climate, rainfall and other conditions upon which agriculture depends are also quite different. Production, therefore, must be localized to take advantage of these forces. Products must often be taken to several places so that the final result can be secured with the least effort. Intelligence finds one of the best fields for its action in the utilization of local advantages, and the growth of the motives favoring commerce, makes an epoch in human progress.

4. The Persistence of Forms. If a nation has only those kinds of food that cannot be stored, but little progress can be made in production. Fruits or meat without ice or salt do not furnish the basis for regular industry. Rice or corn are much less enduring than wheat, and without the latter article much of modern commerce would be impossible. All forms

of fixed capital depend, also, on the continuation of matter in the form which man gives to it. Where earthquakes or cyclones are common, a narrow limit is put upon great enterprises. The activity of insects, the action of frost, the rusting of metals and the decay of vegetable products, retard the development of industry, and create a field for the use of intelligence in counteracting these changes.

5. The Efficiency of Serial Labor. The slow action of natural forces aided by the permanence of material forms, affords man an opportunity to modify the action of natural forces, making them efficient for production. The forces of nature are abundant, but are wasted unless made to act in turn on the products of industry. A commodity is the result of the consecutive action of a series of forces. Every extension of the time of production allows new forces to act or makes those in use more efficient. Capital is the result of serial production. It is not a productive force but merely partially formed goods in a somewhat permanent form capable of being changed into consumable commodities through the action of new forces.

In addition to these objective conditions of production there are also certain subjective conditions having a social origin. Society is not an objective reality, but it creates a subjective place for itself in the modifications of the race psychology produced by it. In the development of race psychology new motives enter which modify the actions of individuals, changing the character of their industrial activity. Every adjustment of society to nature creates in its members a new feeling which causes them to adhere to the new social arrangement. Ideals are formed and feelings are generated which have a binding force upon all individuals of a given race. Certain of these ideals and their corresponding feelings have become so marked that they are prominent forces in production.

1. Future Welfare. The desire to have the future provided for is an active agent in production. As soon as it becomes a clearly defined ideal the individual places a high estimate on future goods and is willing to modify his production so as to create more goods for the future. This change allows the accumulation of capital and the utilization of many natural forces that cannot aid present production.

2. Association. The primitive man lives in isolation and hates his neighbor. He lacks the instincts that lead men to live in intimate relations and assist each other in production. Under these conditions the principle of the division of labor cannot be utilized and industry cannot make much use of local advantages. The development of race psychology displaces these feelings of the primitive man, and puts in their place new feelings that lead him to associate with other men, to coöperate with them in production.

3. Credit. The development of the moral faculties creates in man a feeling of honor in keeping his engagements. Commerce and trade can grow only where a strong sentiment favors honesty and integrity. The State may compel some men who lack these feelings to fulfill their engage-

ments, but the public sentiment back of the law must be active, or the law will not be enforced.

4. The State. In no respect is the progress of race psychology more apparent than in the ideal it creates of State activity. The welfare of society becomes an ideal to be set up against the welfare of individuals, and feelings are generated which check the selfish actions of individuals. New wants are also created that can be gratified only by concerted action of society. These wants are less exclusive than those dominant in most individuals, and when they become more urgent than those of a selfish nature, production is modified, and greater use can be made of natural forces.

5. Education. The individuals in a society undergo a constant change. The children of to-day become the workmen of to-morrow. The individuals of each age determine to a large degree the intelligence of their successors, and unless the love of their children is strong they will not limit their own consumption to increase the welfare of their children. The development of race psychology makes education one of the social ideals and strengthens the feelings that encourage it. It makes the desire for good schools so active that many of the lower wants must give it precedence.

The conditions of production are then partly subjective and partly objective. They are the active forces which direct the energies of producers and determine where labor shall be applied. They put limits to the field of employment, and create the mechanism of society through which the wants of its members are supplied. The individuals of any society are placed within this field of employment under the conditions which natural laws and their race psychology determine, and must seek the line of least resistance open to them. The conditions of production being created for them they must set those forces in motion which assist in the production of commodities. Two avenues are available by which these results are secured—labor and intelligence: the one, through muscular exertion, secures the readjustments of matter needed to increase the utility of objects already produced by nature; the other secures the coöperation of nature in producing new commodities and in rendering them more useful. The active energies of individuals can be exercised only along these channels, and when it is known to what degree the individual of a given society will make use of each of them the whole mechanism of production is fixed, and its efficiency can be determined.

The number of agents in production, therefore, are many more than the factors in distribution, and it obscures the processes of production to submit it to the same division which is needed in distribution. Production deals with productive forces, while distribution treats merely of the sources of revenue to individuals. We associate the revenue derived from natural forces with land and call its revenue rent. Capital is the objective form in which the influence of society on production shows itself, and its possession determines who shall secure the benefits of social progress in the form of interest. The labor of an individual is that exertion which has a subjective cost, and the revenue from it is

wages. Intelligence secures results through the coöperation of nature without subjective cost to the individual, and the revenue from this source becomes profits.

The classical economists supposed that all the intelligence of society was evenly distributed among the capitalists, and consequently regarded profits and interest as coming from a single source. The progress of society, however, has clearly shown that intelligence and the saving instinct are not always combined in one person, and that the laws which distribute the revenues derived from these sources are not the same. Intelligence has become a more prominent factor in recent production and its distribution among individuals more unequal. These facts justify economists in making profits a fourth source of revenue, and in placing it on the same footing as rent, interest and wages.

XXII

The Law of Diminishing Returns

It is not possible to close the present discussion without saying a word about the law of diminishing returns. The classical economists emphasize it so much that if it is not made the basis of economic doctrine the laws that are substituted for it must be contrasted with it. Economists have resorted to the law of diminishing returns from the logic of their situation, and not from direct evidence as to its validity. The discoverers of the law were not farmers or agricultural chemists—for neither of these classes recognize such a law, but city people ignorant of agriculture and of the conditions upon which its progress depends. Certain phenomena of city life attracted their attention and demanded an explanation. Why does the price of food rise with the growth of population? Why do interest and wages fall under like conditions? What is the cause of poverty? And, finally, why does population spread over the whole globe instead of aggregating in a few places? When such questions as these were asked of city people, it was hard for them to find an answer based upon the facts of production with which they were familiar. The efficiency of their production had regularly increased, and there seemed no reason, arguing from their industrial conditions, why interest and wages should not be high. It was natural, therefore, that they should look to the country for an explanation, and seek in agriculture the law they could not find under their own conditions.

An easy and far-reaching explanation became available in the law of diminishing returns. One law of agriculture could be made to settle all the difficult economic problems of city life. The supposed niggardliness of Nature could be made responsible for the distribution of wealth, and for all the poverty and suffering of city people. The necessities of their theory of value assisted in increasing their need of the law of diminishing returns. If value depends upon the cost of production, no article could rise per-

manently in value unless its cost was increased. But city prices were rising in spite of the increase of productive power. To accept any other explanation of high prices would demand a new theory of value as well as a new theory of agriculture, and thus the law of diminishing returns acquired a place from which it could not be displaced without a new theory of political economy.

It is not probable that the progress of economic science will bring to light any one law which will displace the law of diminishing returns, but it may furnish a series of laws that will gradually reduce the necessity of resorting to it. And finally, the various laws may fit so well together that the logical need of this particular law may cease. In this case the law would have to stand on its own merits. It would become a possible law of agriculture, but it would not lie at the basis of economic doctrine. Let us see what particular laws will account for some of the facts which are explained by the law of diminishing returns.

1. The Spread of Population. Nature gives a supply of food and a large number of goods without cost. In natural conditions fish and game are abundant, wood for fuel and raw material of all kinds are free, while the pleasures of a life in the open air are unlimited. Primitive races prefer to rely on these free goods rather than to work regularly to secure the comforts of a civilized life, and consequently spread themselves over the earth in search of free goods. Wherever the wants of men are limited, and acute suffering in times of need does not cause men to provide for the future, this tendency to spread is unchecked, and an irregular supply of luxuries is secured at the expense of a larger supply of comforts.

2. The High Price of Food. It has been said that the high price of food of itself proved the law of diminishing returns. This assertion overlooks the fundamental law of objective values. There can be no general rise or fall in values. If some articles fall in value, some others must rise. If the efficiency of labor in every industry were decreasing, some article might fall in value if the rate of decreasing efficiency were less in some industries than in others. Likewise a general increase in the efficiency of labor produces a rise in the value of particular commodities when the increase of efficiency is less in some industries than in others. The rise in the price of food, therefore, merely shows that the increased efficiency of agricultural labor is less than that of many other industries. The least productive land is to-day more productive than similar land in the last century, but it is not sufficiently good to make the increase in the efficiency of agricultural labor equal to that of city labor.

3. The Reduction in the Rate of interest. The rate of interest does not depend upon the margin of cultivation, but on the difference in the value of present and future goods. The progress of society increases the desire for future welfare, and reduces the premium which individuals are willing to pay for present goods. If the margin of cultivation has been lowered with the fall in the rate of interest, the two facts are due to independent causes.

4. The Cause of Low Wages. A low rate of wages and irregular employment do not indicate that the best natural resources are exhausted. These facts show that certain classes are shut out from the margin of enterprise, because they lack the intelligence needed to utilize new opportunities of labor. They thus become dependent upon the higher classes for employment, or must seek work at the margin of waste. Such positions are limited in number and incapable of multiplication, and hence the increase of population prevents the rise of wages. Wages cannot rise with the margin of enterprise unless the intelligence of workmen increases with every rise in the margin.

The cause of poverty and other phenomena which make the law of diminishing returns plausible does not lie in the objective environment, but in the subjective conditions of producers. Ignorance and a low standard of life are doing what, under other conditions, an increased use of inferior lands might do. The cause lies not in the niggardliness of nature but in race psychology. Every development in the psychical elements of the race opens up new fields of employment, unseen by its ancestors; it modifies its wants so as to reduce the cost of production, and changes poor lands into good lands through the increase in the variety of food. There is no room for the action of a law of diminishing returns so long as new avenues are open for the psychical development of the race and the growth of social ideas and feelings.

The habitual antagonism to which Mill refers is not between the law of land and the law of civilization, but between two tendencies in civilization —the static and the dynamic. When the first tendency predominates production is driven to the margin of waste where the return is less, while the second tendency extends production at the margin of enterprise where the return is greater. The relative strength of these two tendencies determines the relative value of food and other commodities. The causes that raise the price of food, however, are as complicated and as much of a social nature as are those that reduce the price of manufactured goods.[1]

XXIII

The Disposition of the Surplus

The income of a society must be divided into two parts—the surplus and a fund to repay the costs of those who undergo subjective pain in production. Of the disposition of the latter fund there can be no question. Each individual must secure enough of the produce of industry to place him in as favorable a position after as he was before production. The surplus, however, is in the possession of society, and must be distributed by the institutions it creates. The laws and customs of society determine to what degree the surplus shall be employed collectively, and any other distribution of it also demands the consent of society.

[1] Patten, *Premises of Political Economy,* Chap. VI.

To understand the influences in progressive societies which have controlled the disposition of the surplus, we must return to the primary distinction between the static and dynamic elements in society. The collective use of goods has favored the static classes and retarded progress. Mankind has had to choose between enjoying the surplus collectively, and using it to keep society progressive. Civilized nations have given up the surplus to get prosperity; the unequal distribution in a progressive society has been preferred to the equal shares of a static society.

The principle that the static elements of society tend to get the surplus, has been dimly seen from the dawn of civilization, but has been more clearly recognized by the modern world. The laws and institutions of each nation and age are based upon some theory as to the cause of progress, and they dispose of the surplus in the hope of increasing prosperity. It must be taken from the static classes "who reap where they do not sow," and be given to those whose activity and intelligence promote industry. The contrast between the static and dynamic classes is ever present in society, and progressive nations must frequently resort to new measures to repress the one and encourage the other. In this way several theories of progress deserving attention have been invented.

In primitive societies land is the chief source of wealth, and its improvement is the only avenue to prosperity. The interest of the individual in a particular farm is so much greater than that of the community that society is benefited by placing it in his hands. Cheap food is more essential to progress than the surplus of land, and society gives up the latter to secure the former. The static elements in such societies are usually the ruling classes, and if the surplus is retained by society they secure it. The struggle for the surplus, therefore, lies between the rulers and land owners, and progress requires that the latter be favored.

This disposition of the surplus does not give a permanent solution of the problem. After a time the land is improved and population increases so as to create a high price of food. The owners become a separate class in society, and they are more interested in the revenue derived from the land than in its further improvement. They now become the static element in society, and cheap food and prosperity must be sought by other means.

A new theory of progress is now developed. Commerce and manufactures must be encouraged and fostered. The towns begin to grow, and their industry must be promoted at the expense of the country. Increased prosperity can come only through new industries, and society, therefore, encourages the growth of intelligence and enterprise by a system of protection. Taxes are laid on imported articles, or bounties are given to domestic producers in the hope of changing the location of old industries and of developing the new. The burden of these taxes falls upon rent, and thus the surplus of society is taken from landlords and given in the form of profits to the promoters of industry.

[In these early forms protection had many successes, but they were not of a character to ensure permanent prosperity. Its scope was not broad

enough] to prove a lasting means of keeping the surplus of society in the hands of the progressive classes. The absence of foreign competition [in small countries] often became a means of keeping some industry static. The protection was used to secure high prices in local markets under conditions where improvements were impossible. The static influence of this kind of protection was increased by the introduction of production on a large scale until it finally became so strong that [some nations abandoned it, while others either gave it a less prominent place or made it conform more fully with modern conditions.] [1]

A third theory of progress was introduced by the free trade movement at the close of the protection era. It was now claimed that prosperity would continue if the consumers were favored. If competition remained free, prices would fall to the cost of producing goods and there would be no monopolies. Where values are determined by costs, all the benefits of improvements would come to consumers and their prosperity would mean the continued progress of society.

This theory, like those that preceded it, brought with it many advantages to society, but also like them, it failed to furnish a satisfactory basis of permanent prosperity. It overlooked the fact that there can be no general fall in objective values. Competition does not result in low prices, but in a redistribution of profits. Where differences in intelligence divide a nation into non-competing groups of producers, the value of certain classes of goods may fall in price. But this cheapness does not aid the consumer, because it is accompanied by a correspondingly high price for other classes of goods produced under conditions where competition does not act. The low class of laborers which produces the cheap goods demands food of so poor a variety and of such kinds that high prices must be paid if large quantities are wanted. Monopolies, therefore, are not abolished, but merely changed in form. What the consumer gains in the low price of commodities is absorbed again by the rise in rent.

It is also a great mistake to suppose that the interests of individual consumers harmonize with those of society. The consumer strives to increase the consumer's surplus. He wants as great a difference as possible between the cost of commodities to him, and their total utility. He seeks for the cheapest article, so as to increase his surplus. He has no direct interest in the surplus of producers, and is willing to sacrifice their surplus to increase his own. Consumers, therefore, encourage a low class of producers whose goods have a high subjective cost, but a low objective value.

But society is interested in the whole surplus. Its welfare is promoted by the growth of the producer's surplus because the whole surplus is in-

[1] Bracketed changes in this paragraph are from corrections made in Dr. Patten's handwriting on the margin of his own copy of *Dynamic Economics*. There are some other instances in this reprinting where changes from the original wording have been made but not of sufficient importance to be worth noting. Many changes in punctuation and some in spelling and diction have been made where they seemed imperative. In all important cases, the original form has been preserved.—R. G. T.

creased by the causes that raise subjective values and lower subjective costs. The progress of society tends to make the total subjective value of all goods approach more nearly to their total utility. Hence the progress of society is at the expense of the consumer's surplus, and there is an abiding opposition between public interests and those of the consumer.

The growing importance of capital and the rise of a distinct class of capitalists brought with them yet another theory of progress. Capital is necessary to industry and is the fund from which wages are paid. Additional population can find employment only through the increased savings of the capitalists. From this it was claimed that the welfare of society, and in particular the welfare of the laboring class depended upon the growth of capital and the encouragement and protection given to the capitalists. The capitalists also had the intelligence and energy to manage large industries, so that the protection of capital became a new form of encouraging enterprise.

This theory ensured progress during an important epoch in the development of industry, yet its defects soon became apparent. When complete protection from loss was given by law, a class of capitalists arose who depended entirely upon their income and avoided all the risks of industrial undertakings. There is an abundance of capital for safe investments but a scarcity of it for [industries] where risk is involved. Stock in old industries is in demand, but new industries often languish for want of funds. Through safe investments capitalists are gradually taken from the progressive part of the community and placed among the static classes who absorb the surplus. A new class of men arises which takes risks and pushes new enterprises, and upon it society depends for its present prosperity.

While other devices are possible by which the interests of a class may be made to harmonize with the interests of society and thus deserve encouragement, they cannot become the basis of continuous prosperity. Enough experiments of this kind have been tried to show the tendency of the favored class to become static and to give back to society less in prosperity than they take from it as surplus. Any class represents but a part of the elements needed for abiding prosperity, and when the impetus which they give to progress has in a measure exhausted itself a conflict is sure to arise between the interests of the class and those of the public.

In the progress secured through classes there is the further evil that the development of the mental qualities of the race is confined to a part of the community, and some qualities are encouraged at the expense of others of equal or greater importance to society. Individuals secure their incomes through a few of their faculties which become dominant in them, creating feelings which bias their judgment on public questions. The harmonious development of the race psychology is prevented, while a series of class psychologies is formed with ideals and feelings antagonistic to the general welfare.

Society, therefore, in time must become dissatisfied with its present irregular progress through indirect and costly means, and use more efficient

agents to develop the mental qualities and feelings active in production. Strong social feelings with intimate social relations, a high morality with a clear perception of the advantages of credit, a lofty ideal of society with a strong feeling of hostility to selfish aggression, and active interest in the future welfare of the race with a well defined educational policy, contribute as much to the production of wealth as natural advantages or the efforts of individuals. And yet these psychical elements get little direct encouragement in the distribution of wealth. In rent, profits, interest, and wages, individual producers get a reward largely in excess of their subjective costs, while the part reserved by society to promote the growth of mental qualities of a social origin is much less than is contributed to production. We starve our social nature to gratify our primitive feelings.

As the importance of the psychical elements of production becomes more clearly perceived, individuals will be more willing to allow the state to retain the surplus for educational purposes: and the scheme of education will be broadened until all the productive qualities and feelings in men are encouraged. This education must continue until every individual is prompted by the same social feelings, and looks upon the field of production from the same standpoint. The dominant characteristics of each class will then be a part of the psychical premises of every other class, and the feelings developed by the opposition of class interests will disappear.

SOME EXPLANATIONS RELATING TO THE *"THEORY OF DYNAMIC ECONOMICS"* [1]

THE progress of political economy has involved a shifting of the point of view of economic writers and the grouping of the doctrines of the new science about new centers. Ideas, also, which at first were introduced as isolated phenomena out of any direct relation to the main body of economic theory, gradually assume a more important place, and finally become the basis of the greater part of economic reasoning. Of this change of which I speak, probably the doctrine of utility is the best example. It was first introduced in a casual way to illustrate the definition of value. Even in the writings of Mill it was not vitally connected with his system of political economy, although it was made the basis of his theory of morals.

The recent works of Jevons, Menger, and their many followers, have at length given the principle of utility a fundamental place in the theory of value. These writers have also reconstructed the theory of distribution, and in this way the greater part of deductive political economy is based upon or grouped around this one thought. In the *Theory of Dynamic Economics* I have tried to develop a theory of prosperity, putting the doctrine of utility at its basis. The older economic writers dealt mainly with the theory of prosperity, and it is only since the time of Ricardo that the theories of distribution and value have assumed a dominant place in economic speculation. As a result of this transfer of interest from one portion of the science to another, great confusion has arisen both in ideas and nomenclature. As has often been pointed out, economics is very defective in the terms which express the leading ideas of the science. These terms are drawn necessarily from popular usage, have many meanings, and are too few in number to express properly all the shades of meaning which an economist desires to emphasize. The terms, therefore, which were used by the earlier writers in the theory of prosperity have been used with other meanings by later writers in the theories of value and distribution.

In the attempt to revive an interest in the theory of prosperity, I naturally used many words according to the manner of the earlier writers, and sought to introduce some new distinctions which seemed necessary in putting the principle of utility at the basis of the theory of prosperity. There is, therefore, need of great care in reading my book to keep in mind the meaning which is given to words, and to contrast consciously the theory of prosperity and that of value. Professor Clark has done this in an admirable

[1] Reprinted from the *Quarterly Journal of Economics,* Vol. VII, pp. 177–187, January, 1893.

way in his review of my book,[1] but as much can hardly be said of the review by Professor Hadley.[2] The latter has assumed that the only proper use of terms is that to which he is accustomed in the discussion of the theory of value; and, by neglecting the careful explanation of the use of words which I have given in my book, he is able to make it appear that my analysis is confused and my reasoning erroneous. As other readers may judge my book from a similar standpoint or be influenced by his opinions, I desire to explain anew the ideas he has misunderstood.

Professor Hadley compares my analysis of the psychological motives in the act of production with that of Jevons, and asserts that my analysis lacks the rigidity of reasoning which is so admirable in the case of Jevons. The analysis is, however, quite similar, differing only in the fact that I appeal to more psychical elements than Jevons does. We both assume that, with the increase in the quantity produced by a workman, the marginal utility decreases and the marginal cost increases. Jevons assumes that the workman will cease production when the marginal utility equals the marginal cost. I assume that the workman, in a favorable environment, will not work so long, but will cease to produce while the marginal increment of production yet yields a surplus in consumption. I shall not try to prove my conclusion; but it plainly rests upon certain psychical phenomena which do not affect the rigidity of my reasoning, if my assumptions are facts. The theory of the relation of cost to value must then be reconstructed to correspond to the new data, and the subsequent reasoning modified in a similar manner.

There is in this analysis no comparison of the pleasures and pains of one man with those of another man.[3] The subject of my analysis is isolated to the same degree that Jevons isolates the subject of his analysis. Such analysis of the motives of the individual I hold, with Jevons and with Professor Hadley, to be essential, and claim that I have fulfilled the conditions.

When, however, we have analyzed the motives of the isolated producer, he must be placed in a social environment, and the modifications which arise from these new conditions must be considered. And here, again, I claim that my reasoning is similar to that of Jevons.[4] He does not contend, for example, that there never are in the same market two prices. He uses the law of indifference to help himself out.[5] This law, when expressed in its broadest terms, claims that an economist can overlook phenomena that in no way affect the conclusions he desires to draw. With proper explanations, Jevons thinks that it may be claimed that there is only one price in the same market; yet, in proving this law, the defective credit of purchasers, and their imperfect knowledge of the market, are consciously overlooked.

[1] *Annals of the American Academy of Political and Social Science,* July, 1892.
[2] *Political Science Quarterly,* September, 1892.
[3] *Dynamic Economics,* Figure I, on page 70. [Page 75 in this volume].
[4] *Ibid., Figure II,* on page 72. [Page 76 in this volume].
[5] See Jevons, *Political Economy,* page 99.

Professor Hadley could have asserted that Jevons assumption was "a palpable mistake" just as well as to have said this of my assumption. The real question is not: do my assumptions differ from those of Jevons? but: do I draw conclusions that would be vitiated by the fact that the pleasures and pains of individuals differ?

This question can only be decided by a detailed investigation of my book. In explaining the first diagram (page 75), I call attention to the fact that no attempt is made to determine the exact amount of pain that the production of each increment demands, and that the lines measuring it are placed where they are merely for the sake of simplicity. It is, therefore, not the equality of the pleasures and pains of different persons that I assume, but that these facts are of no importance in my reasoning. I try to represent the effects of progress upon the utilities and pains of the members of a society, and my real assumption is that the changes in these quantities are all in the same direction. For example, an improvement in farm machinery would affect the subjective costs of all farmers in the same way. Not that every farmer before the improvement had the same costs, nor even that the improvement reduced the efforts of all farmers to a like degree, but that every farmer's costs would be less than before, hence the lines measuring the costs should be differently located under the new than under the old conditions. So, also, with the increase of utility due to improvements in consumption. The introduction of sugar, for example, will add something to the utility of each individual; and hence the lines measuring the surplus of utility must be differently drawn, even though the additions to the utility of different individuals are not the same.

The claim that consumer's surplus and differential gains decrease relatively with social progress does not assume that they decrease to each individual in a like degree, nor does the law that total subjective value in a dynamic society approximates more closely to the total utility of commodities, demand this assumption for its proof. These laws merely represent tendencies and assume the indifference of extraneous facts.

There are, then, two distinct kinds of analysis which must be consciously contrasted. When we consider the pleasures and pains of an isolated man, the quantities of which we treat are positive, and the comparisons direct. When, however, we pass from the economy of the isolated man to that of a group of men in social relations, the quantities are relative, and our comparisons are between the pleasures and pains of such a society at different stages of its progress. The diagrams illustrating this class of problems merely show the effects of a group of tendencies which act on all individuals in the same way, but to unlike degrees.

Professor Hadley is also mistaken as to the comparisons which Jevons makes of the pleasures and pains of different individuals. That the reasoning and premises of Jevons are similar to mine is shown in many places, of which I shall give a few examples. In reference to Figure VII, on page 156 of his *Political Economy,* he says: "Let the wool of Australia be represented by the line *o b,* and its total utility to Australia by the area of

the curvilinear figure $o\ b\ r\ p$. Let the utility of a second commodity, say cotton goods, to Australia be similarly represented in the lower curve, so that the quantity of commodity measured by $o^1\ b^1$ gives a total utility represented by the figures $o^1\ p^1\ r^1\ b^1$."

In these sentences, and in the subsequent reasoning, the utilities of articles to different persons are compared and the relative utility of each increment fixed. The utility of the whole supply of wool to Australia is regarded as a definite quantity which can be represented in a figure. It is not assumed that the different increments of wool have the same utility to all Australians, but it is assumed that the utility of these increments to different persons has a common standard through which they can be measured and compared. The figure used by Jevons does not differ in kind from the figures I use; nor do I use any assumptions which he does not need. The only difference is that my figures represent the utility of the whole produce of a nation, while his figure includes only the utility of single articles.

In comparing the sacrifices of different individuals, Jevons goes even farther than I do. On page 234 he says, "I shall suppose that a certain laborer *or, what comes to exactly the same thing,* a body of laborers, expend labor on several different pieces of ground." The italics are mine, and they show that Jevons assumed that the sacrifices of different individuals could be directly measured. On the next page (235) Jevons uses even stronger language. He says, "We may say, then, that, whenever a laborer or a body of laborers distribute their labor over pieces of land with perfect harmony, the *final ratios of produce to labor will be equal.*" The italics are Jevons' in this case, and show that he did not hesitate to overlook the subjective differences in men when economic theorems were involved, the truth of which did not depend upon such differences. If further proof of the way Jevons reasoned is needed, I refer the reader to page 97 of his book, where he discusses what he calls the "Fictitious Mean." His opening sentence is, "It should be remarked, however, that the economical laws representing the conduct of large aggregates of individuals will never represent exactly the conduct of any one individual."

The assertion that I, misusing the term "subjective value," regard subjective and objective values as quantities of the same general sort, demands an explanation of these terms before a refutation of the charge is possible. We owe to the Austrian economists the term "subjective value"; and yet I think they employ the word in a wrong sense, making it, by their usage, really a species of objective values. To clear up a confusion which lies in the discussion of value, I have drawn the distinction between positive and absolute utilities. Positive utilities are the units of satisfaction we derive from articles of consumption. Subjective value, as I use the term, is always measured in terms of positive utilities. I define subjective value, in a positive way, as the quantity of pleasure we derive from an article; while the Austrians define it, in a negative way, as the utility we lose if we are deprived of an article. If different series of satisfaction did not depend

upon one another, this distinction would be of no importance; but, since we often find that the loss of one element in one series of satisfactions deprives us of the pleasure of several different groups of articles, the distinction implied in defining utility in a positive or negative way becomes of fundamental importance, and places a large number of values the Austrians have termed subjective in the class of objective values. In short, we lose the possibility of rigid analysis if the distinction is neglected.

Suppose I ascend a mountain, and desire food and shelter for the night, so as to enjoy the sunrise. The landlord demands ten dollars for these accommodations. I can return to the valley, and get food and shelter at a reasonable price; but I should thereby lose the pleasure of the sunrise at the summit. What, under these circumstances, fixes the price of the food and shelter on the mountain? Is it the subjective satisfaction I get from these commodities, or the objective relation between them and the sunrise I hope to enjoy? If it is the latter, then the value in question is objective, and not subjective. The increased price which the hotel-keeper demands is not compensated on my part by any increase of utility. It results merely in a transfer of a sum of utilities, which otherwise would be mine to enjoy, into the possession of the hotel-keeper. The theory of subjective values includes only problems relating to the increase and decrease of utilities. All problems relating to the transfer of utilities from one person to another are in the domain of objective values. A transfer of utilities indicates a change in objective values, while an increase or decrease of utilities affects subjective values.

Subjective values, in the sense that the Austrians use the term, determine *market* values. In the sense, however, in which I use the term subjective value determines the *normal* objective value of commodities.[1] Normal objective values tend to be proportional to the positive utility of the marginal increments of commodities. The field in which the Austrian economists are working is therefore different from the field in which I am interested. Using the term "subjective" in the way I do, several important relations become clearly defined which are obscured by the Austrian nomenclature. Perhaps these distinctions are of no importance in the consideration of objective values, but they are of prime importance in any attempt to measure the relative prosperity of a society at different stages of its progress.

The use of similar terms with different meanings is, perhaps, an excuse for confusing my ideas with those of the Austrian economists; but it gives no ground for the assertion that I use subjective and objective values interchangeably, and combine the two in one diagram. There is no diagram in which the two are combined, nor are the terms ever used in the same sense.[2] Subjective values rise and fall, while objective values are not sums, but merely ratios. Changes in objective values indicate a shifting of utilities

[1] *Dynamic Economics,* page 65 [page 76 here]
[2] See *Dynamic Economics,* page 64 [page 75 here]

from one person to another, while changes in subjective values indicate a better or worse condition of society. Every change in subjective values affects the objective values of commodities, some rising, while others fall. There is an increased demand for all articles; but, as some articles follow a law of increasing return, others a law of constant return, and still others a law of decreasing return, the change in subjective value alters the relation of marginal subjective cost to marginal utility to a different degree with each class of commodities; and hence there must be a shifting of objective values to create anew an equilibrium between marginal cost and marginal utility. A change in subjective values may also affect favorably or unfavorably the possibility of the monopoly of particular commodities, and thus creates new causes for changes in objective values. Changes in objective values, however, seldom affect subjective values: they merely shift from one class of persons to other classes, utilities already created by other forces.

It is not out of place in this connection to explain more fully the point where the change should be made from subjective to objective values. Subjective value relates primarily to present goods. It is the satisfaction we get from the marginal increment of any commodity we consume. We attribute or impute to future goods in the final stage of their production a subjective value equal to the marginal increment of the present goods we make from them. Future goods have no consumer's surplus. Each increment of wheat made into bread has the same subjective value. Individuals produce future goods, and exchange them with society for present goods. These future goods have a subjective value in the exchange equal to the marginal utility of the present goods produced from them.[1]

Producers, therefore, get for their future goods (including the interest for waiting) a sum equal to the subjective value of all present goods. Consumers get free only the sum of the consumer's surplus. This sum only appears when the present goods get into the hands of the final consumer. Producers cannot get this part of the surplus without arbitrary prices. All other parts of the surplus fall into their possession, because the imputed value of the future goods they produce equals the subjective value of the present goods made from future goods.

Whenever there is a rise in the subjective value of present goods, the imputed value of future goods rises to a like amount. The rise in the subjective value of future goods is not equal, because producers are compelled to impute the greater part of the added utility to the rarer articles whose rate of increase is the slowest. The ratios of exchange of these future goods will change to the advantage of the more slowly increasing factors of production. The differences, therefore, between subjective costs and the subjective values of future goods are appropriated by producers as a class; but the distribution of this fund of surplus value (the difference be-

[1] In explaining this statement, it should be kept in mind that goods continue future until they are handed over to the final consumer. Saving is a productive act, the reward for which is an element in the subjective value of future goods in their final form just before they become present goods to their ultimate consumers.

tween marginal cost and subjective value) is a problem of objective values. We must know the ratio in which commodities exchange before the shares in the surplus value of the different producers can be determined. In this manner we can delay for a long time the passage from the consideration of subjective to objective values; but in the end it must be done, or some of the problems of distribution will remain unsettled.

The validity of the claim that I combine subjective and objective values in one diagram depends upon the definition of the word "rent." Professor Hadley says that "rent is the excess of price over cost." I am surprised that he should base so important an argument on such a definition. He cannot but be aware that every leading economist from Ricardo to Jevons has defined rent in another way. "Rent," says Ricardo, in his well-known definition, "is the portion of the produce of the earth paid to the landlord." Rent from this standpoint is a part of the produce of the land, and not the prices of produce. All proofs of the Ricardian theory of rent use the word in this way. It is of course true that these writers often use the word as an elliptical expression for money rents, but such a usage cannot be made a justification for an exclusive use of the word in the latter sense. If rent is produce, the satisfactions derived from wheat or potatoes are of the same nature as the satisfactions derived from cloth or books or furniture, and can be combined in one diagram with them without error.

The diagram in question represents in a simple form the facts upon which theories of the distribution of wealth are based. Most theories of distribution do not have the shares of the different factors measured in quantities of the same kind. Rent may be measured in produce, wages in money, interest in a rate per cent., and profits in future goods. Through this lack of co-ordination of the parts there is unnecessary duplication, and parts of the produce of industry may not be accounted for or may be given away twice.

To avoid these evils, I measure every part in present satisfactions. The whole annual produce of the nation, the present goods fit for consumption, is the fund to be divided. Every factor has its share measured in these present goods and the satisfactions they afford.

In yet another way my theory differs from other theories of distribution. They suppose that there is a single law that controls the share of each factor. They have, therefore, a law of rent, of wages, of interest, and of profits, and assume that through these laws all the produce of the nation is distributed. I hold, however, that the annual produce of the nation is composed of several distinct funds, each of which has its own law of growth. These funds are then distributed to the various factors by a series of secondary laws. The surplus of society is not distributed by the same law that regulates the return a producer gets for his costs in aiding production. Rent, wages, interest, and profits are therefore usually complex funds made up of revenue derived from different sources. The problems of distribution thus become more complicated, and demand a more careful analysis of the phenomena involved before a satisfactory solution can be obtained.

CAN ECONOMICS FURNISH AN OBJECTIVE STANDARD FOR MORALITY?[1]

IT is affirmed by Mr. Herbert Spencer, in his *Data of Ethics,* that all current methods of ethics have one general defect—they neglect ultimate causal connections. Now that he has added another method of ethics to those we previously possessed, certainly it is not out of place to examine whether he has neglected any of those ultimate causal connections which were overlooked by previous moralists. It must be conceded that he has brought out many causal connections by which a much clearer view of ethics can now be had than was formerly possible; but that he has clearly enumerated or even consciously recognized those ultimate causal connections which lie at the basis of the true ethical system must be doubted even if we accept those general principles from which he proceeds. Mr. Spencer affirms that it is the business of Moral Science to deduce from the laws of life and the conditions of existence what kinds of actions tend to produce happiness and what kinds to produce unhappiness. An examination of his books, however, will reveal that he has deduced most of his conclusions from the laws of life alone. A reader is left in complete darkness as to what those ultimate conditions of existence are to which humanity must ultimately conform to obtain the highest type of existence. When I endeavor to determine these ultimate conditions and seek aid from Mr. Spencer's writings, I find that he, as well as his predecessors, has an inadequate idea of causation, and at some points he seems to have no idea of causation at all. To be specific, I would say that Mr. Spencer asserts that on our planet an evolution is taking place in which the fittest tend to survive and through which the surplus of our pleasures above our pains is constantly increased. Now, if such an evolution is taking place, it must be due to the peculiar natural conditions of our planet. Whoever asserts that a progressive evolution must take place on Mars, Jupiter, or any other planet regardless of their peculiar natural conditions, certainly lacks an adequate idea of causation. The same would be true of any one who asserted that a progressive evolution would take place on our planet if all the soils and climates were like that of Greenland, Sahara, or many other places. Evolution can be progressive only under peculiar natural conditions, and only when all these conditions are present can we expect a progressive evolution.

Mr. Spencer, however, asserts more than that we have a progressive evolution. He also asserts that this evolution has a given goal—an ideal

[1] Reprinted from the *Journal of Speculative Philosophy,* Vol. XXII, pp. 322–32. September, 1892.

social state where pleasure is unalloyed with pain anywhere. In asserting the possibility of an ideal state where all right conduct has no necessary painful consequences, he either has an inadequate idea of causation or he means to affirm merely that the natural conditions of our planet are such as to allow an ideal social state.

Supposing that in his two main propositions we have a progressive evolution and that an ideal social state is for us possible; he means only that these two propositions are true of the natural conditions of our planet. There is still need to examine the natural conditions which each of these propositions presupposes to see if they harmonize enough so that both of them could be true of one planet. If the natural conditions needed for an ideal social state where pleasure is unalloyed with pain are anywhere different from those which a progressive evolution demands, then an ethical system which endeavors to ground itself on both of these propositions lacks consistency, and one or the other proposition must be given up so as to harmonize our ethical ideal with natural conditions.

If Mr. Spencer wished to show that his idea of causation was more developed than that of his predecessors, he should have shown that these two fundamental points of his system harmonize. He has, however, avoided all discussion of the necessary conditions of existence and has sought only to elucidate the laws of life; yet these laws are not ultimate, but depend on the external conditions of existence.

I wish to discuss in detail the external conditions upon which these two propositions depend, and think it can be made clear that they require for their realization radically different natural conditions—so different that it is impossible for one planet to have all the natural conditions necessary to make both of these ends possible. I shall endeavor to determine what natural conditions a progressive evolution demands, and then these natural conditions can be compared with those which Mr. Spencer's ideal social state presupposes.

The evolution of life, we are told, is a continual adjustment of internal relations to external conditions. We thus have two distinct problems to investigate—the fixed external conditions and the internal relations which must adjust themselves to the external conditions. To the second of these problems evolutionists have devoted their entire attention, bringing in the external conditions in a casual way. They presuppose such a set of external conditions as would make a progressive evolution possible and then investigate the changes in the internal relations which take place as these relations gradually adjust themselves more and more to external conditions.

What, then, are the external conditions which favor a progressive evolution? To answer this question we must first determine what are the external conditions upon which we are dependent and to which we must adjust ourselves. There is no great difficulty in determining these conditions, since they mainly lie in the conditions determining the food-supply. It is true that we need water and air and a few other things outside of the food-supply; but as these are found in abundance where any food can

be obtained, we can overlook these factors and give our attention solely to the conditions of the food-supply. To adjust ourselves to natural conditions is, when stated specifically, to adjust ourselves to the food-supply, and to say that we are surrounded by natural conditions favorable to a progressive evolution is to say that the food-supply enlarges as the intelligence of those who consume it increases. To illustrate this proposition let us take an extreme case. Suppose a world so situated that the sun shone on every part alike, thus causing an equal temperature everywhere, and that there were no mountains or hills, no differences of soil or climate, nor any other difference by which one locality would have an advantage over any other locality. Upon such a world, if a suitable plant were introduced, it would spread until it covered the whole world. But would it tend to evolve into many varieties and cover the earth with as many kinds of plants as we now have? Suppose, further, some low class of animals to be introduced, would they tend to form varieties and create a progressive evolution?

On the other hand, let us suppose a world which has many different climates and soils, many hills and mountains, swamps and deserts, and all that variety in other particulars which would be sure to arise from such a diversity of fundamental conditions. If upon such a world first a plant and then a low class of animals were introduced, what would be their tendencies to form varieties and to evolve into higher forms of life?

If we examine the writings of our leading evolutionists to determine which of these worlds would have the conditions favorable to a progressive evolution, it will be found that all their proof presupposes a world where there is a great variety of soil and climate and would not apply to such a world as was supposed in our first illustration. A given animal or plant spreads over a limited territory where external conditions are favorable. When these limits are reached a new variety is evolved suitable to an adjacent region with somewhat different external conditions, and when this region is filled another variety arises suitable to still other external conditions which other regions possess. When all the world is once filled with simple organisms, complex organisms are involved with enough intelligence to utilize those portions of the food-supply which are not accessible to lower organisms.

Certainly such arguments take for granted that we live in a world of frost and heat, of mountains and valleys, and of all those other changes to which we as a race are subjected. Examine these arguments from the objective side and they show that low organisms can exist only under simple conditions, and all the food-supply cannot be utilized by such organisms wherever there is a great variety of soil and climate. Room and food are thus left for higher organisms to evolve under those complex conditions from which the simpler organisms are excluded, and a progressive evolution can continue so long as still higher organisms obtain support through a greater utilization of the food-supply. In other words, a progressive evolution is possible when but a portion of the whole food-

supply is available to low organisms, and the more the intelligence of an organism is increased the greater is the portion of the food-supply which it can acquire. The food-supply, however, can be small for low organisms and enlarged for higher organisms only in a world of a great variety of soils and climates, and only in such a world can we expect to find a progressive evolution. In a world without change or variety of any kind a complex organism would have no advantage over a more simple one. All the food-supply could be obtained by simple organisms and there would be no unoccupied regions over which higher organisms could spread.

It may be said that in such a world, organisms would still tend to adjust themselves to Nature. Certainly; but under these conditions low organisms would be completely adjusted to Nature. What, for instance, can be better adjusted to Nature than a grasshopper on a warm summer day when the whole surrounding world is covered with grain and grass upon which he may feed? If we contrast him with the ant, who works to lay by a store for winter, he is much better adjusted to present external conditions. It is not the lack of adjustment to present conditions that proves the superiority of the ant over the grasshopper. The grasshopper can adjust himself to the summer heat and plenty, but the dampness and frost of the coming autumn find him unprepared. It is only because we live in a world of change where one extreme follows the other in rapid succession that the adjustment of the ant to Nature is better than that of the grasshopper. In a world of deadening uniformity the grasshopper would have the advantage over more complex organisms and could displace them.

A world of change would be a world of intelligence, but it would not be a world of pleasure unalloyed with pain anywhere. To be free from pain it would be necessary to migrate to another world where there is a complete uniformity, and where wind and hail and frost and other disagreeable results of changing climate cannot interrupt a life of pure pleasure. Must we not therefore conclude that the external conditions needed for an ideal state of pure pleasure are radically different from those which a progressive evolution presupposes? When Mr. Spencer assumes that all our pains arise from an incongruity between the natures which men inherit from the present social state, and the requirements of social life, he overlooks the fact that many of our pains arise from those changing external conditions over which we have no control. Certainly, if there were a complete adjustment of internal relations to external conditions, there would be no pain, but it should be kept in mind that there can be no complete adjustment when the external conditions are variable. If the axis of the earth did not incline to the sun so as to cause changes of seasons, and if our mountains were levelled and our soils made of equal fertility, then we might adjust ourselves so completely to Nature that we should have no pain. So long, however, as our external conditions remain as they are, our adjustment to them must always be incomplete, and there must be many pains and diseases which arise purely from necessary external conditions. Our moral ideas, therefore, must be very different from what

they would be if we were surrounded by a different external condition.

Even Mr. Spencer has affirmed that moral principles must conform to physical necessities; but when he lays down the condition of absolute ethics he overlooks all the physical necessities of our planet and adopts a moral standard which may be a very good one on Mars or Jupiter, but certainly is not fitted for our world. If the law of absolute right can take no cognizance of pain, it certainly can take no cognizance of our planet; and when Mr. Spencer considers an ideal man as existing in an ideal social state, he clearly shows that his ideal presupposes a world without change and not such a one as that in which we live. While believing in a progressive evolution, he takes away the very conditions which make a progressive evolution possible in order that he may predicate an ideal state without pain as a possibility for us.

Mr. Spencer tells us that the best examples of absolutely right actions are those arising where the nature and its requirements have been moulded to one another before social evolution began. Now, for two things to become moulded to one another their external conditions must be constant and not variable, and, as our external conditions are variable, we cannot ever become completely moulded to them. Were all our relations between man and man, this moulding might become complete; but our most important relations are not those between man and man, but between man and Nature. In giving its natural food to the child the mother receives pleasure; but can the mother get her food from Nature without pain? To my mind, the chief source of the mother's pleasure would arise from the fact that she can exempt her child from all those pains to which every one must submit who acquires his food direct from the hand of Nature. The external conditions surrounding the food-supply must determine what are the highest types of moral action, and so long as one man, by bearing more than his share of the pains necessary to procure food, can exempt his family or his friends from their pains, or can reduce their pains more than his pains are increased, so long will such actions be regarded as of a higher type than are those which bring less pleasure but no pain to all concerned. We admire the warrior who sacrifices his life for his country, because such actions are typical of those which every one must perform in every-day life. If we did not have to fight with Nature for food, we should not think of fighting with one another, and then Mr. Spencer's absolutely right actions might become models. So long, however, as most of us must live in unhealthy climates, plough the land in April rains, harvest wheat in August heat, husk corn in November frosts, and feed our stock in December snows, we shall admire facts of self-sacrifice by which the few suffer more that the many may suffer less.

It is at this point that Mr. Spencer has made a great mistake. He discards the utilitarian doctrine because in its current form this morality is merely empirical, and utilitarians do not deduce from the laws of life and the conditions of existence the kinds of actions that tend to produce happiness. But does this deficient method of procedure justify Mr. Spencer

in overlooking the external conditions of existence so that he can set up a life without pain as a model for imitation?

A moral doctrine can be deduced from the external conditions of existence, and thus Mr. Spencer's objection can be avoided. To conform to Nature is, as I have said, to conform to the conditions of the food-supply, and as the amount of the food-supply depends largely on the actions of men, those actions which permit an increase of the food-supply or economize its use are moral actions. The number of persons who can exist in our world by hunting and fishing is small, and as each person must have many hundred acres to support himself thus, he excludes many beings from the possibilities of a happy existence. When men resort to agriculture they decrease the number of acres which each one must have to procure his food, and thus allow many possible beings to become actual participants of a happy existence. The food-supply is further augmented when men use wheat, beef, and other articles of which Nature is least productive in relatively less quantities and consume relatively more of rye, potatoes, rice, and similar articles of which Nature is the most productive. A proper rotation of crops and a right use of commerce allow the food-supply again to be greatly increased, and greatly decrease the number of acres which each man must have to provide himself with food. The economy of the food-supply is of no less importance than are the methods by which we produce our food. At the present time almost every one consumes two or three times the amount of food needed for his health simply for the pleasure which its consumption affords. So long as each one eats enough to maintain health, and then in liquor and tobacco consumes the produce of enough more land to support another man, half of the possible beings to whom this world might afford a happy existence are excluded, and the gross sum of human happiness is greatly reduced.

There is yet another condition to happiness which must be considered before we can determine what is the gross sum of happiness which this world can afford to human beings. The mental qualities inherent in man which have been developed in increasing the food supply determine how many sources of pleasure the members of a society can enjoy. The man whose vocation calls into activity but one quality has few sources of pleasure other than eating and drinking. If the production of rice or potatoes or of cloth or shoes requires of the laborer but little skill, those who produce these articles will have their faculties but partially developed, and will thus be cut off from most of those pleasures which are most enjoyable to fully developed beings. The greater the number of qualities which are developed in any man, the more sources of pleasure will he have which are not derived from a mere consumption of food. The inexclusive pleasures of fully developed beings do not draw largely on the food-supply,[1] and hence these enjoyments do not exclude others from the possibilities of a happy existence.

Each individual through his actions and demand for food creates a de-

[1] Patten, *Premises of Political Economy,* Chap. II.

mand for land. Some one individual needs but five average acres to supply his wants, a second ten, a third twenty, a fourth one hundred, a fifth five hundred, and still others need one thousand acres or even more. We must, of course, count in each one's share the number of acres which his conduct, considered as a whole, causes to be unoccupied or partially used. If a people have such habits that they cannot live near together, or if they are so warlike that they prevent a large portion of the earth from being occupied, the unoccupied or partially used land must be credited to them.

All our conduct influences our demand for land, and that conduct is, in an objective sense, the most moral which enables us to exercise all our faculties on the least land. We can, therefore, judge of the conduct of individuals or of nations by their demand for land. It is not necessary to know the subjective feelings of all individuals or how they increase their own happiness. We can judge of their conduct from what they desire for consumption and from how much of a demand for land this consumption creates. Those pleasures or habits which create a large demand for land are less moral than are those which require the exclusive use of fewer acres of land. The greatest happiness for the greatest number cannot be attained without the greatest economy of the food-supply and the use of all the land in the most productive manner. Only that conduct can be absolutely right which allows both of these ends to be fulfilled. Upon our planet at least all the food-supply cannot be utilized unless some persons are willing to endure pain. By harmonious actions we can greatly increase the surplus sum of our happiness above our pains, and also the number of those who can participate in our pleasures. Yet some pains must be endured, and that conduct, however painful it may be, which reduces the gross sum of the pains which humanity must endure, must serve as a type of perfect action. Suppose two planets with external conditions like our earth. On one of these the people admired those acts which involve no pain, while on the other a life of self-sacrifice furnished a model for imitation. On the first of these worlds only a mere fraction of the food-supply could be utilized and the population would be small. A few islands or small valleys in favored localities might be found where frosts, storms, and disease were so rare that a life without pain could be enjoyed. These localities would be isolated, since commerce cannot be carried on without pain, and as a result the inhabitants would be deprived of many sources of enjoyment.

On the second of these worlds, where the thought of pain would not deter any one from action, the outcome would be very different. Every climate could be utilized, even though many of them might be unhealthy, and all kinds of food could be produced. Every productive act could be carried on at the point where the least labor would be required, while commerce could distribute all the produce of industry even though a few sailors froze their fingers furling the sails or perished in a shipwreck. The second world would have many times the population of the first world and many more sources of enjoyment.

Suppose, now, a third world of complete uniformity, where storms and frosts never come and where disease never arises except through filth and ignorance. Here Mr. Spencer's ideal man might exist, since he would be in complete harmony with surrounding nature. In such a world as ours, however, he could not exist. He needs not only an ideal social state, but an ideal world. For each world there is an ideal man and a corresponding social state, and the ideal man in a world of change must be different from that of a world of complete uniformity. A world of change cannot offer a life without pain, but it can offer a life with many intense pleasures and but few pains. Such a life forms an economic ideal, and it certainly corresponds to the possibilities of the world in which we live. The greatest happiness for the greatest number can be attained by us without any modifications of external Nature, and if evolution tears down ideals formed by partially evolved subjective feelings and replaces them with other ideals which can be realized, we must expect that the economic ideal of morality will gradually displace those ideals which can be realized only on worlds with other external conditions.

THE INTERPRETATION OF RICARDO[1]

EVER since the death of Ricardo there has been an increasing interest in him and his writings. For all deductive economists his theories have had a charm which those of no later writer possess. There are many whose reasoning is more perfect, many whose ideas are more clearly expressed; but few have attained the commanding position of Ricardo in economic theory.

On the other hand, among a large class of economists with inductive and historical tendencies, any doctrine to which Ricardo's name is attached is discredited, and often treated with contempt. I have no desire to enter this controversy, which must rest as it is until a new spirit causes men to interpret the history of economic theory from a new standpoint. I only desire to discuss the interpretation of Ricardo's writings which has grown up among his followers and disciples, and from a position friendly to him and them. Few writers have a greater interest in deductive economics than I, and no one would be less willing to say anything that would reflect any discredit or lower in any way the high esteem in which Ricardo is held. Yet it seems to me that his friends in defending him have placed him in a false light, and have distorted the history of economic theory. Ricardo is too great a man to need any false praise: his merits will only be magnified if he is placed in his true historical position as an economist.

Perhaps I can bring forward the issue I want to discuss no better than by asking a question. In the early part of the year 1815 a remarkable essay by Malthus appeared, which opened up the discussion of the theory of rent; and a few months later came a still more remarkable essay by Ricardo, in which the position of the modern economist was clearly represented. There is a marked difference between the essay of Malthus and that of Ricardo. The character of the change which Ricardo brought about in economics becomes more manifest when we compare the position of Malthus with that taken by Ricardo in his *Political Economy*, published two years later. How are we to explain the difference in tone between the essay of Malthus and that of Ricardo, and more especially how are we to account for the sudden appearance of a work of so much importance as Ricardo's *Political Economy?* It might be claimed that, upon reading the essay of Malthus, a new theory of political economy loomed up before him, as a sudden inspiration, so to speak. But such radical changes in the ideas of a mature man rarely take place. It is true that sometimes one man gives a new impetus to the thinking of another, as is shown in the influence

[1] Reprinted from *The Quarterly Journal of Economics*, Vol. VII pp. 322–353, April, 1893.

of Hume on Kant; yet in this classic example it took years for Kant to work out his system, while Ricardo seems to go through his evolution of thought in a few months.

Out of this difficulty there is a way which has received much favor from later economists; and that is to ignore Malthus's books entirely, and to treat rent and other doctrines of Ricardo as the product of his own thinking. In this way, however, a great injustice is done Malthus, and the development of the ideas of Ricardo is placed in a false light. We are not called upon to put all these theories in a bunch, and then decide whether Malthus or Ricardo was their sole discoverer. The works of these two writers are distinct and supplementary. Ricardo did much for economic theory, but it was different from what Malthus did; and the glory of the former is reduced, and not increased, by ignoring Malthus. The strength of each of these writers lay in fields where the other was weak.

Let us go back therefore to the beginning of the period to which these writers belong, and try to place each in his true position and give to him the credit to which he is entitled.

It is plain that both these writers took their starting-point in economic investigation from the writings of Adam Smith. The *Wealth of Nations* contains the elements of two different economies or modes of viewing economic affairs. But they are blended so nicely that their lack of harmony did not become evident until a new development in the industrial world brought new issues to the front.

The older economy may well be called the agricultural economy. It supposes that the mass of the people resides in the country, and depends upon the cultivation of the soil for a living. Under these conditions land problems are of vital importance to society, and the surplus from land is almost the sole cause of social progress. So small a use is made of capital that it is not considered of enough importance to place it beside land and labor as an agent in production or a factor in distribution. The loaning of money on interest is looked upon as an evil, because the borrower usually expends the money received on luxuries, and does not use it to increase the productive power of society. The leading contrast in the sources of income lies between rent and wages: the first represents the surplus of society; the second, its costs. Prosperity, therefore, depends upon the increase of rent. If the landlords are prosperous, society is prosperous, because the surplus of the landlords is diffused throughout society, and creates its prosperity. These ideas were developed more consistently by the Physiocrats than by other thinkers, yet the same general principles lie at the basis of all the earlier writers who think of society as made up of agricultural communities.

The growth of cities as a result of the industrial development of the eighteenth century created a new way of viewing national progress, which may be called the industrial economy. The rapid increase of capital is the leading phenomenon of such a society. It is the one thing around which all the problems of city life cluster. Buildings, machinery, raw material, finished goods, and all other necessaries of production and exchange are

viewed merely as forms of capital; and the dependence of production upon nature (the leading fact of a country economy) is overlooked or neglected. Even the food supply is considered more as a product of saving than as a product of natural forces.

The two factors of production thus become capital and labor, and the two forms of income are profits and wages. Capital takes the dominant place that land takes in the agricultural economy, and the surplus of society becomes profits instead of rent. Wages are still the equivalent of cost, but they are contrasted with profits instead of with rent. In the agricultural economy wages fall as rents rise; while in the industrial economy wages fall as profits rise, and the opposite. Just as in the agricultural economy the prosperity is measured by the prosperity of the landlords, so in the industrial economy prosperity is measured by the condition of the capitalists. The rate of profits becomes the criterion of prosperity instead of the increase of rent.

In making this comparison, I am fully aware that no writer or group of writers has made use of all these premises. I am merely making use of elements that lay at the basis of their mode of thinking, and were but partially incorporated in their writings. Each writer meant to give an impartial view of the national economy; yet his environment and education colored his views, and created a tendency to neglect facts that did not harmonize with preconceived opinions. Even many city economists viewed the national economy from a country standpoint, and failed to see the industrial function of cities or of capital in modern life.

As long as the national economy was viewed from either of these standpoints, the theory of political economy was of necessity a theory of prosperity. There can be no proper theory of distribution until the disposition of some portion of the surplus income of society is undetermined. With wages at a minimum, and all the surplus of society being either rent or profits, no law of distribution was needed. There was need only of a measure of prosperity, and this measure could be found in the growth of rent or of profits. It is true that in these earlier societies there were rent, profits, and wages; but so long as the country people did not recognize the industrial function of the city, and city people neglected the relation between their prosperity and that of the country, these three elements could not be brought into vital relation. Country people looked upon the city as a place to spend money. The extravagance of court circles attracted their attention more than activity of city artisans. On the other hand, city people knew little of country people except as country gentlemen and other landlords, who were pictured as living upon the bounty of nature rather than upon the fruits of their industry. So long as city people regarded the wealth of the nation as divided among artisans, capitalists, and country gentlemen, and country people thought the distribution was among farmers, land-owners, and city spendthrifts, the basis of a theory of distribution was lacking. It was only possible to indicate what disposition of the surplus was for the best interests of society; and of that disposition there could be no question,

either in the minds of the city or of the country people, so long as they viewed production in so partial a manner.

In comparing these two economies, we shall find the basis of the differences which separated Malthus and Ricardo, and at the same time made their intercourse with each other so valuable to themselves and to the development of economic science.

Malthus viewed the problems of prosperity from a rural point of view, and made national prosperity [synonymous with] agricultural prosperity. The index of country prosperity he found in the amount of agricultural rent, and hence assumed that the increase of agricultural rent was the measure of the increase of national prosperity. But Ricardo was a man of another type, having the instincts and education which a city environment alone can give. He is the first writer to take the industrial phenomena of city life and to create an economy based upon those characteristics. Land problems and commercial problems are with him secondary, and are not considered until the elements of industrial life in the cities have been arranged. With earlier writers purely industrial phenomena are considered merely as a modification of the laws of trade and agriculture. With Ricardo the order is reversed. From industrial facts he develops his fundamental laws, then bringing the laws of trade and agriculture into harmony with them.

Ricardo's thinking on economic subjects begins with a study of the conditions which determine the rate of profits, and about this all his system is constructed. Adam Smith had said that the rate of profits was lowered by the competition of producers. Ricardo, who had been a close follower of Smith, differed from him on this point, and began his independent thinking by controverting this opinion. He showed that values could not rise or fall as a whole. General high or low values were impossible, and hence the fall of profits must have some other cause than increased competition. The true cause he found in an analysis of value. He saw that the cost of production of all freely produced commodities depends solely upon the quantity of labor required to obtain them; and, as general values cannot rise or fall, the rate of profits is determined by the cost of this labor. There was no way through which an employer received a compensation for a rise in wages; and there could be but one result,—a fall of profits.

High wages, however, did not mean to Ricardo a better condition of the laborers. He was a firm believer in the law of population developed by Malthus, and consequently regarded high wages as indicating a higher cost of the articles which the laborer consumed. He assumed further that the consumption of the laborers was mainly food, and hence concluded that high wages indicated a high price of food. Profits by this chain of reasoning are put in contrast with the price of food. Low profits mean a high price of food, and high profits a low price of food. Thus Ricardo reached the famous contrast that lies at the basis of his system. He seized firmly the proposition that the rate of profits depends upon the price of food, and he never lost sight of it through all of his subsequent investigation.

Profits were falling in England at this time, and the price of food was

rising: the latter, therefore, was the cause of the former. This high price of food was due to the tariff on the importation of food; and Ricardo naturally became a free trader, denouncing the Corn Laws as the cause of the low rate of profits. In this stage of his development Ricardo did not suppose that a high price of food and a low rate of profits were a necessary consequence of industrial progress. His conclusions were based on the concrete industrial condition of England at this time. Free trade was the remedy for the abnormally high price of food which governmental restriction had caused. Through it a higher rate of profit could be obtained, and industrial prosperity restored.

With these conclusions Malthus did not agree. He looked at economic problems from an agricultural point of view, and thought that national prosperity depended upon a high price of food. Rent, he contended, was a creation of new wealth, and not a transfer of wealth from the industrial classes to the landlords. Ricardo, however, regarded rent as a creation of value merely, and not a creation of wealth. The rise of rent indicated a transfer of the surplus of society from producers to landlords, and a fall in the rate of profit. What was once profit became rent through the high price of food.

The essay of Malthus on "The Nature and Progress of Rent" was the outcome of this controversy about the Corn Laws. He desired to show that the high price of food was not due to the Corn Laws or to monopoly, but was a natural consequence of national progress. The increase of population required more food, and more food could be obtained only by the cultivation of poorer land. The high cost of cultivating these poorer lands demanded a high price of food, and a nation could not be populous and prosperous without such an increase in the price of food as would allow poor lands to be cultivated with the usual rate of profit to farmers. The high price of food was therefore the result of an increasing population and not of the Corn Laws. The latter strengthened the motives which lead farmers to improve their land, and thus created the fund out of which increased rents could be paid. Malthus, therefore, naturally became a protectionist, defending the Corn Laws.

This essay on rent did not have the effect upon Ricardo that Malthus anticipated. Ricardo saw what Malthus did not see,—that the new theory fitted admirably into Ricardo's system, and made the proof of his theory of the relation of the price of food to profits more perfect. The law of rent came into Ricardo's system, *not as a basis, but as a better proof of a theory already developed.* He now saw that the high price of food was a natural consequence of industrial progress.[1] He was therefore able to base his theory that profits fell as the price of food rose, on a general law of nature, and not on a specific study of English conditions. Instead of drawing the particular conclusion that the Corn Laws raised the price of food

[1] "High rents and low profits . . . ought never to be the subject of complaint if they are the effect of the natural course of things." See Ricardo's "Essay on the Influence of a Low Price of Corn on the Profits of Stock," p. 20.

in England, and thus reduced the rate of profit, he could appeal to a line of argument that would prove deductively the well-known historical fact that the rate of profit fell with every increase of national prosperity.

The discovery of the cause of rent was the beginning of a new epoch in the development of economic theory, for it turned the attention of economists from the theory of prosperity and the disposition of the surplus of society to theories of value and distribution. While, however, an impetus to these new studies was given by the writings of Malthus and Ricardo, it is a serious mistake to assume that their interest centred in the theory of distribution instead of the theory of prosperity. So much emphasis has been given to the theory of distribution by recent economists that they are apt to read into the writings of the earlier economists opinions which would impute to them the ideas of a period later than that in which they lived. The theory of distribution could not be developed until some laws were formulated, fixing the size of the funds distributed as rent, profits, and wages.[1] Nor could the theory of value assume a prominent place until it was known what elements did and what did not enter into the cost of production of commodities. Neither of these theories, therefore, could be discussed until the theory of rent was discovered. When the concept of marginal cost had displaced that of average cost, it became possible to resolve profits into a number of special costs (risks, abstinence, etc.), and then to say that value *equals* the cost of production instead of the older formula that cost is *proportional* to value.

The theory of prosperity contrasts only cost with surplus, and does not need any theory of value for its discussion. The theory of cost of the earlier writers was simple, because they assumed that the laborers received none of the surplus, and that all the consumption of the laborers was in the form of food, which included clothing and shelter. The surplus was therefore the difference between the cost of food and the value of the whole produce of industry.

As later writers have analyzed profits and interest into a species of cost, it may be well to show that the older economists regarded them as a part of the surplus. In this way it can be shown that the older economists viewed political economy primarily as a theory of prosperity.

"The profits of stock, it may perhaps be thought, are only a different name for wages of a particular sort of labor,—the labor of inspection and direction. They are, however, altogether different, are regulated by quite different principles, and bear no proportion to the quantity, the hardship, or the ingenuity of this supposed labor of inspection."—*Wealth of Nations,* Book I, Chap. vi.

"Like the rent of land, it [interest] is a net produce which remains after completely compensating the whole risk and trouble of employing the stock." *Ibid.,* Book V, Chap. ii, Article II.

"The more general surplus here alluded to is meant to include the profits

[1] All theories of distribution are dependent upon some theory of value to fix the size of the funds to be distributed.

of the farmer as well as the rent of the landlord, and therefore includes the whole fund for the support of those who are not directly employed on the land. Profits are, in reality, a surplus, as they are in no respect proportioned to the wants and necessities of the owners of capital."—Malthus, "Inquiry into the Nature of Rent," p. 16, note.

"Provided its net real income, its rent and profits, be the same, it is of no importance whether the nation consists of ten or of twelve millions of inhabitants." Ricardo, *Political Economy,* Chap. xxvi.

On these points there were no differences of opinion: the dispute related to the disposition of the surplus,—whether it was better for society that the surplus should be rent or profits. Adam Smith and Malthus held that high rent was the measure of social progress, while Ricardo maintained that high profits was the true measure. To contrast these two opposing positions, it may be well to quote from these writers.

"Every increase of the real wealth of society [says Smith], every increase in the quantity of useful labor employed within it, tends indirectly to raise the real rent of land. . . .

"These are the three great original and constituent orders of every civilized society, from whose revenue that of every other order is ultimately derived. The interest of the first of those great orders [landlords] it appears from what has been just now said is strictly and inseparately connected with the general interest of the society. Whatever promotes or obstructs the one necessarily promotes or obstructs the other. When the public deliberates concerning any regulation of commerce or police, the proprietors of land never can mislead it, with the view to promote the interest of their own particular order, at least if they saw any tolerable knowledge of that interest. . . .

"But the rate of profit does not, like rent and wages, rise with the prosperity and fall with the declension of the society. On the contrary, it is naturally low in rich countries and high in poor countries; and it is always highest in the countries which are going fastest to ruin. . . . The proposal of any new law or regulation of commerce which comes from this order [employers of labor] ought always to be listened to with great precaution, and ought never to be adopted till after having been long and carefully examined, not only with the most scrupulous but with the most suspicious attention. It comes from an order of men whose interest is never exactly the same with that of the public, who generally have an interest to deceive and even to oppress the public, and who accordingly have, upon many occasions, both deceived and oppressed it."—*Wealth of Nations,* Book I, conclusion of the last chapter.

"Rents [says Malthus] are neither a mere nominal value nor a value unnecessarily and injuriously transferred from one set of people to another, but a most real and essential part of the whole value of the national property, and placed by the laws of nature where they are, on the land, by whomsoever possessed, whether the landlord, the crown, or the actual cultivator."—Malthus, "Inquiry into the Nature of Rent," p. 20.

"It is not, of course, meant to be asserted that the high price of raw produce is, separately taken, advantageous to the consumer, but that it is the necessary concomitant of superior and increasing wealth, and that one of them cannot be had without the other."—*Ibid.*, p. 47.

It is easy to find other statements of this character in both these writers, but enough has been presented to show the defective analysis they make of the causes of national prosperity. The industrial function of city producers was not understood; while high profits were regarded as coming from illegitimate sources, and not due to an increase of productive power. To break the force of such ideas, it was not a new theory of distribution that was needed, but a new analysis of production, and of the causes of prosperity. The place of city people in production must be made clear, and the causes of high rents properly analyzed. In short, the fact demanded emphasis that the increase of prosperity depended more upon industrial than upon agricultural conditions, and, further, that the increase of wealth was due to high profits, and not to high rents.

Ricardo was the first economist to view economic relations solely from an industrial or city point of view, and hence from the start he consciously puts himself in opposition to the theory of prosperity held by Smith and Malthus. He did not need a formulation of the law of rent to rouse him in an economic world, dominated by the ideas of these writers. It was the cause of rent and profits that first interested him, and not the law of their distribution. His letters to Malthus show clearly that the relation of the price of food to the profits of stock were one of the first subjects to which his attention was directed.

"If by adopting such policy [Corn Laws] a country were to enhance the value of the raw materials which it consumes, of which corn is the principal, it would thereby lower the rate of interest. . . . This is a repetition, you will say, of the old story, and I might have spared you the trouble of reading at two hundred miles' distance what I had so often stated to you as my opinion before; but you have set me off, and must now abide the consequences. I was never more convinced of any proposition in political economy than that restrictions on importation of corn in an importing country have a tendency to lower profits."—*Letters of Ricardo to Malthus* (Bonar's edition), No. XV.

"I have been endeavoring to get you to admit that the profits on stock employed in manufactures and commerce are seldom permanently lowered or raised by any other cause than by the cheapness or dearness of necessities, or of those objects on which the wages of labor are expended. Accumulation of capital has a tendency to lower profits. Why? Because every accumulation is attended with increased difficulty in obtaining food, unless it is accompanied with improvements in agriculture, in which case it has no tendency to diminish profits."—*Ibid.*, No. XXI.

"I have now read with great attention your essay on the rise and progress of rent. . . . I cannot, however, help regretting that you did not consider separately the relations of rent with the profits of stock and the wages of

labor. By treating of the joint effect of the two latter on rent, you have, I think, not made the subject so clear as it might have been made. . . . I think, too, that rents are in no case a creation of wealth: they are always a part of the wealth already created, and are enjoyed necessarily, but not on that account less beneficially to public interest, at the expense of the profits of stock." *Ibid.*, No. XXIII.

The first two of these extracts were written before the appearance of Malthus's essay on rent, and the third is from the letter acknowledging its receipt. They show how clearly and definitely Ricardo had worked out his fundamental ideas before he heard of the theory of rent. The relation of the price of food to the rate of profits is the central thought of his early as well as of his later writings, and the charm of his reasoning is mainly due to the able manner in which he groups so many other ideas around this one thought. In this way that crude and incongruous concept of the industrial world upon which Smith and Malthus based their theory of prosperity was displaced by Ricardo by another concept more in harmony with the phenomena of his own time.

Viewing Ricardo's *Principles of Political Economy* in the light of these facts, it is not difficult to divide the book into parts which will show the periods in the development of his system of thought. It was either partly written before the essay of Malthus on rent appeared, or the specific and isolated manner in which Ricardo was accustomed to study the several economic problems in which he was interested, prevented him from uniting them into an organic whole and restating his proof in harmony with the new conditions. He does not coördinate rent with profits and wages, thus consciously breaking the ground for a theory of distribution. He remains satisfied when he has shown that the theory of rent does not affect his theory of value, because rent is not a part of the cost of production of commodities. Profits are still made to depend upon wages, rent being recognized only in an indirect manner. He thus left for later writers that transformation of political economy into a theory of distribution which shows plainly in J. S. Mill, but most completely in F. A. Walker.

The early form of Ricardo's thinking is shown in his discussion of value and prosperity (riches). The following chapters contain the nucleus of this economic system before it was modified by contact with contemporary economists: XXCI, "On Gross and Net Revenue." XX, "Value and Riches, their Distinctive Properties." XXVIII, "On the Comparative Value of Gold, Corn, and Labor, in Rich and Poor Countries." I, "On Value." IV, "On Natural and Market Price." V, "On Wages." XXI, "Effects of Accumulation on Profits and Interest." The order is not that in which they were written or that in which they appear in his book. In writing he seems to have started from the point of greatest present interest, and afterwards to have added chapters as they occurred to him or as they were suggested by current economic discussion. In this way some of the topics to which his attention was at first directed come late in the book. The chapter on Profits (VI) logically belongs to this group, but he has

evidently revised the argument of the first part of it to make it conform to the new theory of rent. His earlier views on profits are better stated in the chapter on the "Accumulation of Profits."

In these chapters he shows clearly the influence of Adam Smith. The writings of the latter are the starting-point for the discussion of each specific point, and then Ricardo proceeds to develop his own ideas by a contrast between his position and that of Smith.

The second period includes the parts relating to money and foreign trade. In these discussions Ricardo reasons from original investigations based upon facts within his own experience and observation. Here is the *pure* Ricardo. The familiar facts of trade and commerce are isolated from other industrial phenomena, and treated as though they formed a complete industrial world of their own. They are, however, specific, concrete, and pictorial, presenting a picture of the world as seen from the books of a merchant or banker. Bold deductions are made from these specific cases which were happy in their results because the whole industrial world was then moving along lines where bankers and traders had gone before.

The third period in Ricardo's thinking resulted from the discovery of the theory of rent by Malthus. Under its influence he changed the character of his law of the relation of profits to the price of food from a particular to a general law, and revised his discussion of profits by basing his argument on the law of rent. (See his chapter on Profits.) This change in the argument for his fundamental propositions naturally turned Ricardo's attention away from the theory of prosperity to the problems of distribution. The chapter on Profits was, I think, the last chapter that he thought out (in its present form); and there he has partially shifted his point of view from prosperity to distribution. His Preface, however, was last of all to be written; and in it he has finally become conscious of the importance of distribution, and declares it to be "the principal problem of political economy."

This Preface is of peculiar importance as an illustration of the specific way in which Ricardo reasoned and of the difficulty he had in breaking away from the concrete form in which he first thought of individual problems, and shows the effort required for him to see a general truth instead of concrete particular laws. Nowhere throughout his whole book does he treat rent, profits, and wages as coördinate factors in distribution, after the manner in his Preface. He often contrasts profits and wages, or profits and rent, but never rent and wages. If he had broken away from his concrete thinking enough to contrast wages and rent, he would have forestalled Henry George, since the latter writer has nothing new of theoretical importance except this contrast neglected by Ricardo and his followers.

The cause of the concrete way in which Ricardo looked at economic problems is easily explained when we have the key to the development of his thinking. In discussing value as a static problem, he always contrasted profits with wages, because wages were costs of production, and profits were its surplus. When, however, he was discussing the distribution of the surplus (net produce), he always contrasted profits with rent. The latter grew at

the expense of the former, whenever the increase of population due to social progress raised the price of food. We have in his book these two concrete doctrines stated in an endless variety of forms; but nowhere except in the Preface does he generalize enough to see the coördinate relations of rent, profits, and wages in the theory of distribution.

It may seem strange to assume that the Preface was written after the rest of the work. Books, however, are written on two plans. Systematic writers think out their whole scheme before beginning to write, and their prefaces reflect the contents of the books. Unsystematic writers, like Ricardo, begin without any clearly perceived plan, write section after section in a haphazard manner, frequently changing the order of the sections in the book. There is, therefore, no clew to the order in which the chapters of such a book were actually written except internal evidence. The first may be last, and the last first, or first and last both may be in the middle of the book. When a writer of this kind has finished his book, he writes his preface. It is not, however, an introduction to the book, but an appendix to the last chapter he wrote, with perhaps a few odds and ends for which he found no other fitting place. With Ricardo his Preface is an appendix to his chapter on Profits, where he finished his writing, and in which he dimly saw the theory of distribution which became so important in the subsequent development of the science.

From internal evidence I am inclined to believe that James Mill wrote or at least inspired the first three paragraphs of the Preface. They have his tone and style, and not Ricardo's. As I have said, Ricardo never co-ordinates rent, profits, and wages. Mill does this consciously from the start. Ricardo never classes machinery with labor and capital. His capital is primarily food, and thus he contrasts labor with the sustenance of labor. Mill, however, regards capital primarily as tools or instruments, increasing the productive power of men. He would, therefore, naturally make a three-fold division,—labor, the material aids to production, and sustenance.

The fourth and subsequent paragraphs of the Preface have a true Ricardian ring, and were doubtless at one time the whole of the Preface. They are specific and definite statements of facts, beginning with a reference to the discovery of the true doctrine of rent by Malthus and West. His modest appreciation of his own abilities shows itself plainly in the fifth paragraph, and his characteristic appreciation of Adam Smith and Say in the two last paragraphs. In this part of the Preface, according to Ricardo's usual method of treatment, wages and profits are regarded as the ultimate shares in distribution; while, as a whole, they are contrasted with rent which grows at their expense. To write such sentences as these was natural to Ricardo, and he needed no aid in their construction. But the first three are of a different character. They must have been inspired by some one else or written at a later period than the rest of the Preface, and thus marked a transition in the thinking of their author from the theory of prosperity to that of distribution.

It is also a mistake to assume that Ricardo generalized sufficiently upon the data which the law of rent gives to make the cost of production the cost of that portion of a commodity produced under the most unfavorable circumstances. He did indeed get glimpses of this law in concrete cases, but he failed to grasp those features of the modern industrial world upon which F. A. Walker has recently based his law of profits. Professor Gonner, however, is of another opinion, and says that Ricardo states this law with the utmost lucidity.[1] He quotes the following passage in support of his position.

"The exchangeable value of all commodities, whether they be manufactured or the produce of the mines, or the produce of land, is always regulated, not by the less quantity of labor that will suffice for their production under circumstances highly favorable, and exclusively enjoyed by those who have peculiar advantages of production, but by the greater quantity of labor necessarily bestowed on their production by those who have no such facilities, by those who continue to produce them under the most unfavorable circumstances, meaning by the most unfavorable circumstances the most unfavorable under which the quantity of produce required renders it necessary to carry on production."—Ricardo's *Political Economy* (Gonner's edition), p. 50.

So far as words go, this passage seems explicit enough; but, when we seek to find what Ricardo means, it is easy to show that he did not use these words in their present significance. The next sentence shows how limited were his ideas of the principle involved.

"Thus," he continues, "in a charitable institution, where the poor are set to work with the funds of benefactors, the general prices will not be governed by the peculiar facilities afforded to these workmen, but by the common, usual, and natural difficulties which every other manufacturer will have to encounter."

It is evident from this sentence that Ricardo did not mean that the producers of commodities had different natural obstacles to overcome, or that they differed among themselves in the power to organize labor and capital efficiently. He had in mind only the artificial advantages which some producers have, because of governmental aid or restrictions, or because production is carried on from other motives than gain. The average producer, having the "common, usual, and natural difficulties" to overcome, fixes the cost of production; and the few producers who are exempt from some of these conditions do not fix the price of a commodity, unless they are numerous enough to supply all who want the article. This statement harmonizes fully with Ricardo's conception of the causes determining value. Eliminate every artificial condition, and all producers will have the same difficulties to surmount, and will have the same cost of production. Costs lie in the relations of men to nature; and, these relations being objective, all producers are on an equal footing.

[1] Ricardo's *Political Economy* (Gonner's edition, introductory essay), p. xxxiii.

The more recent conception of marginal cost assumes a graded scale of intelligence among producers, by which their industrial positions are determined. The productive power of a group of producers depends not wholly on the natural obstacles they must encounter, but also on the skill of the workmen and on the management, enterprise, and organizing power of their employers.

These facts were not appreciated by Ricardo, so that his application of the law of marginal cost was limited to a few unimportant cases, arising from governmental interference or from production carried on for charitable purposes. The law thus remained in an imperfect form until later writers saw that the subjective differences in men were as important as the objective differences in land. It then became possible to break down the concrete barriers that separated the law of rent from that of profits, and to view them as species of a more general law.

Viewed from a purely theoretical standpoint, Ricardo's theory of taxation is the most defective portion of his book. The concrete way in which he handles each specific tax prevents him from seeing general principles or even from reaching any general classification of taxes. The same form of taxation is treated in different ways under different names. The discussion in one case seldom tallies with what he says in another, and in some instances the different parts of the same chapter do not harmonize. Taxes on rent are discussed under three different titles, and a tax on raw produce in at least four ways. He fails to reach any general law of the incidence of taxation, because he does not break away from the concrete conditions under which he studies each form of English taxation.

In many respects his discussion of taxation reminds me of Adam Smith's discussion of rent. At times he seems to see the underlying law of the incidence of taxation, and to state it clearly, only, however, soon to lose sight of it altogether, and to fall back into that hopeless confusion of ideas and principles which characterizes the popular opinion on all subjects to which the methods of scientific investigation have not yet been extended. In taxation he lacked a Malthus to stir him up to his best thinking, and to help him break away from his concrete method of investigation and reasoning. He thus left the theory of taxation in that imperfect form in which his theory of profits would probably have been left but for his contact with Malthus, or that in which Malthus's theory of rent would have been left but for Ricardo.

As was the case in most of Ricardo's reasoning, his starting-point in taxation was taken from Adam Smith. The theory of the latter is that the burden of taxation usually falls on the consumer. A sum equal to the amount of taxation was added to the price of commodities upon which the taxes were levied. The effect of taxation is to raise the general level of prices, just as an improvement in production lowers the level of prices. Consumers get the benefit of industrial progress, and have to bear the burden of taxation.

Ricardo rejected Smith's theory of the fall in prices through competition, and should therefore have rejected the related theory that consumers bear the burden of taxation. He saw that a general rise of prices was absurd unless the value of money changed, and should have seen that taxation cannot fall on consumers, for it cannot change the level of prices. That producers pay all taxes is as logical an outcome of his theory of value as it was for Adam Smith to say that consumers pay all taxes. If the level of prices cannot be changed, taxation must cut in on the difference between the cost of production and the value of commodities; that is, it must reduce rent or profits, the two forms of producer's surplus which Ricardo recognized.

Ricardo, however, failed to take the bold stand in taxation which he took in the discussion of profits. In the theory of taxation he often loses sight of his great theorem that values cannot rise or fall, and drops his discussion of many taxes when he has traced the effects as far as the consumer, even where his conclusion does not tally with the general principles to which he is elsewhere so fond of appealing. A few quotations will help to show the defects of his theory of taxation:

(1) "A tax on the produce of land . . . would raise the price of raw produce by a sum equal to the tax, and would therefore fall on each consumer in proportion to his consumption."—*Political Economy* (Gonner's (edition), (p. 141.)

(2) "The probable effect of a tax on raw produce would be to raise the price of raw produce and of all commodities in which raw produce entered, but not in any degree proportioned to the tax; while other commodities in which no raw produce entered, such as articles made of the metals and the earths, would fall in price, so that the same quantity of money as before would be adequate to the whole circulation" (p. 151).

(3) "Tithes are a tax on the gross produce of land, and, like taxes on raw produce, fall wholly on the consumer" (p. 157).

(4) "As taxes on raw produce, tithes, taxes on wages, and on the necessaries of the laborer, will, by raising wages, lower profits, they will all, though not to an equal degree be attended with the same effects. The discovery of machinery which materially improves home manufactures always tends to raise the relative value of money, and therefore to encourage its importation. All taxation, all increased impediments, either to the manufacturer or the grower of commodities, tend, on the contrary, to lower the relative value of money, and therefore to encourage its exportation" (p. 196).

(5) "We have seen that profits on raw produce, and on the profits of the farmer, will fall on the consumer of produce. . . . I have also attempted to show that, if the tax were general, and affected equally all profits, whether manufacturing or agricultural, it would not operate either on the price of goods or raw produce, but would be immediately as well as ultimately paid by the producers" (p. 242).

(6) "In the same manner a tax on the profits of the farmer would raise the price of corn; a tax on the profits of the clothier, the price of cloth;

and, if a tax in proportion to profits were laid on all trades, every commodity would be raised in price. But, if the mine which supplied us with the standard of our money were in this country and the profits of the miner were also taxed, the price of no commodity would rise, each man would give an equal proportion of his income, and everything would be as before" (p. 187).

These passages will show in what an unequal degree Ricardo made use of his general principles in the discussion of different taxes, and why he failed to reach any positive theory of the incidence of taxation. His concrete way of viewing each tax prevented him from applying to each new tax he studied the results of other investigations. On the fundamental question whether the consumer or producer pays the tax he takes an endless variety of positions, regardless of the demands of his theory of value. He claims in the sixth quotation that a tax on the profits of all trades would raise the price of all commodities, and hence be paid by consumers, but that, if the profits of the miner from whose mine the money came were taxed, the price of no commodity would rise, and the producers would pay all the taxes out of their incomes. So small a change could hardly produce so great an effect. The weakness of the reasoning is due to the fact that certain premises which should have been used in connection with each individual tax are neglected, and are considered only when he is conscious of having a money problem before him. Ricardo's reasoning is always most perfect when he handles problems of money and foreign trade. He will then trace the ultimate effects of a cause which otherwise he would drop when its temporary effects were explained.

The best statement of the logical outcome of his theory of value is in the second quotation. Here he affirms that a tax will not raise the price of a commodity to the amount of the tax, and that other commodities not taxed will fall in price enough to compensate the consumer for the higher price of the taxed commodity. The consumer therefore loses nothing by the tax, and it falls wholly upon the producers as a class, although not necessarily on the producer of the taxed article.

The latter part of the fourth quotation explains how this compensation for taxation is secured by the consumer. All taxation lowers the value of money, and encourages its exportation. The equilibrium is restored only when the untaxed articles have fallen below their first price enough to compensate the consumer for the somewhat higher price of the taxed articles. The immediate effect of taxation is to raise prices; but it has no ultimate effect on prices because changes in the value of money counteract the effect of taxation on consumers. (See quotation No. 2.)

The defects of Ricardo's theoretical position on taxation are due to his stopping his investigations so often when the temporary effects were shown, and of not always bringing in his general principles to show the ultimate effects. He would then have seen that all taxes fall on producers. If his theory of value is correct, taxes merely change the ratios at which commodities exchange (objective values), and hence cannot raise general values or

affect consumers. They will gain by the fall of one class of articles what they lose on other classes. Taxes must therefore be deducted from the difference between total values and the total costs of production, and thus be a burden to producers.

I have gone into the details of Ricardo's theory of taxation, not to show its defects, but to point out the way he actually reasoned when not influenced by other writers of more abstract tendencies. He began his investigations with phenomena which attracted his attention, and drew from them a picture of their causes in the specific relation which they bore to one another in each particular case. He did not think of these causes as abstract principles isolated from one another, and from the phenomena in which they were active. He was slow to recognize the unity of a principle which he had seen in two or more concrete forms, and often failed to apply a line of reasoning worked out in one group of circumstances to a new group differing somewhat from the first in its details. He failed to generalize in his discussion of taxation as much as in his discussion of value or of profits, for English taxation assumed so many concrete forms that its principles were obscured. He could form a picture of the mechanism through which profits or values rose and fell, but not of the more complex mechanism of taxation.

Ricardo, was not, therefore, the abstract reasoner that we have been led to suppose. His famous propositions are all the result of concrete studies of English conditions in his time. In his reasoning he always has these conditions before him as a picture, and he returns to them for the facts and premises upon which any new conclusion is based. He naturally reasoned from the particulars of a concrete illustration to some general conclusion, but seldom reasoned from generals to particulars unless prompted by the reasoning of some other economist, as was the case when Malthus developed the law of rent. His theories of money, of profits, of value, and of international trade, are all disconnected specific studies. Bold generalizations are drawn directly from the facts of some concrete problem which attracted his attention in his immediate environment. It was the happy selection of the right features of English industrial life for study, and not the breadth of his studies, that made his theories so important, and gave him his fame as an economist.

The misleading estimation of Ricardo as a reasoner has been created by the belief that the theory of rent lies at the basis of his system, and that his other theories are deductions from the laws of rent and diminishing returns. This supposition, however, is not a fact. It is so much easier for us to reach his conclusions from these general laws that we neglect the order in which his ideas were developed. We reverse the historical order of the development of his ideas for what is to us a more natural order, just as he reversed the historical order in which land was brought into cultivation for the natural order in which we now cultivate it. He did this, however, not from any inclination to abstract reasoning, but because the actual condition of

English industry and agriculture was so deeply impressed upon his concrete picture of the economic world. He never thought of studying the genesis of good land from poor land, any more than he thought of the genesis of the thrifty capitalist out of the careless laborer. He took the elements of his picture as they were in his day, and created his economic world out of their mutual relations. His laws were therefore particular and concrete, and were made general laws only by his disciples, who, reasoning in a more abstract manner, substituted new proofs for many of his conclusions.

The history of economic theory shows that its progress has been due to four types of thinking, which may be called the abstract deductive, the concrete deductive, the inductive, and the geometrical methods of reasoning. In the abstract deductive method some quality, relation, or difference is selected which belongs to many classes of phenomena, and from its presence certain deductions are made of all the phenomena which have this common quality, relation, or difference. The reasoning is always from the abstract and general to the particular and concrete. The qualities are made more prominent than the concrete wholes from which they are taken. Menger is a good example of an abstract deductive thinker. His theories of subjective value, marginal utility, and complementary goods, are excellent examples of this class of deductions. There are, of course, many examples in English economics, as Senior's theory of interest, Malthus's statement of the law of rent, and Walker's theory of profits.

In the concrete deductive method there is no analysis of the whole into abstract qualities. The units are of a concrete world. The capitalist is that concrete person met in the bank or the office of the merchant, and the laborer is the man in the factory or following the plough. The men of a given class are thought of not as having individual peculiarities, but as having the qualities of some typical man who has impressed his characteristics deeply upon the thinker. There is a gulf between the laborer, the capitalist, and the landlord which keeps them from being classed by any common or varying qualities. Money is money, and not a species of goods; land is wheat land; and wages are food. The Englishman is an Englishman; the German, a German; the Italian, an Italian; and, because they will always remain with their national characteristics, foreign trade is sharply distinguished from domestic trade, where all the individuals of a class have the same qualities. Economists using this method take the concrete pictures they have formed of their own industrial environment as a basis and a starting-point. They thus reason from particulars to generals by boldly assuming that all persons are the same as the concrete individuals with whom they are familiar, and that all economic phenomena remain in that concrete relation to one another in which the thinker is accustomed to picture them.

Ricardo is the best example of this class of economists. He never analyzes his units into qualities, so as to trace the development of one form of phenomena into other related forms. In spite of his bold generalizations his thinking must be called concrete, because he sees his laws only in a certain

group of relations, and often fails to recognize a law, if some part of a given group of relations is lacking. His "economic man" is not created by uniting a number of abstract qualities to form the man, but by taking as a type of all men some concrete example which was impressed upon Ricardo's imagination.

The abstract thinker takes several isolated qualities or differences, and unites them in a group to form the background of a given theory. The concrete thinker, like Ricardo, finds the background of his theory already formed in some specific case in his own environment, and gets his theory by stripping from the permanent relations found in his illustration their non-essential details. In this skeleton there is a strong cohesion of the relations and qualities of which it is made up. The origin of this particular group of relations is the result of natural circumstance, and not the result of an arbitrary hypothesis of the writer. The concrete thinker therefore has great difficulty in breaking them up into their parts, unless aided by some one whose reasoning is more abstract.

This concrete method of thinking must also be sharply contrasted with inductive reasoning. In any true induction the thinker begins with specific and isolated phenomena, and by skilful selection and arrangement he is able to find the law through which they are related. True inductions should be based upon the widest observation of all classes of phenomena under all conditions and in all regions. They have little value if derived from local experience, and none at all if drawn from the mental pictures which an economist may create of the men, material, and goods which form his economic world. Compare, for example, the inductive way in which J. S. Mill tries to prove the law of diminishing returns with the way in which Ricardo looks at the same law.

Of the economists who have used the geometrical method of reasoning, James Mill is the best example. He seldom appeals directly to experience, but bases his reasoning on "laws of arithmetic," "contradictions of terms," and on "logical absurdities." In this respect his statement of the law of profits should be compared with that of Ricardo. The latter, when speaking of the relation of profits and wages, evidently has the books of a merchant or manufacturer pictured before him. Expenses are wages in their ultimate analysis, while profits are the difference between these expenses and the selling price of goods. The two sides of the ledger are concrete facts. James Mill, however, reasons as follows: "When anything is to be divided wholly between two parties, that which regulates the share of the one regulates, also, it is very evident, the share of the other; for whatever is withheld from the one the other receives: whatever, therefore, increases the share of the one diminishes that of the other, and *vice versa*" (James Mill, *Political Economy*, 2d ed. p. 72). Another characteristic argument is to be found on page 99: "It has been most pertinently and conclusively remarked by Mr. McCulloch that time does nothing. How, then, can it create value? Time is a mere abstract term. It is a

word, a sound. And it is the very same logical absurdity to talk of an abstract unit measuring value and of time creating it."

Such reasoning evidently has little in common with that of Ricardo. It shows the working of a mind trained in logical analysis and abstract deduction, but not a mind familiar with the concrete facts of the industrial world. In spite of this disadvantage, James Mill proved of great service because of his influence in revising the basis of Ricardo's arguments. The later economists have accepted the content of Ricardo's doctrines, but have preferred the arguments devised by James Mill. This combination has many logical advantages, but the direct relation in which Ricardo stood to the English industrial world was lost sight of.

I recognize that the picture of Ricardo drawn in this paper will seem unwarranted by many of my readers. It must, however, be borne in mind that most economists have acquired their ideas of Ricardo and his doctrines mainly through the writings of J. S. Mill; and it is assumed that he is a good exponent of Ricardo's views, and that he received his political economy direct from Ricardo. Doubtless Mill as a mere boy often heard Ricardo talk on political economy, but it is fair to assume that the mere statement of the theories impressed itself more fully upon his memory than the form and character of the arguments. Therefore, he could hardly be a competent judge on the latter points, especially as he had peculiar views of the logical method of political economy, in which he would naturally assume that Ricardo shared. His admiration of Ricardo was too intense to allow him to think of Ricardo as using an erroneous method of reasoning. Mill, however, shows clearly in his *Autobiography* that he was carefully drilled in the logic of political economy by his father. He says, further, that the abstracts of these lessons were used by his father as the basis of his *Political Economy,* published shortly afterwards. It is thus evident that J. S. Mill learned the doctrines of Ricardo in the logical form which they assumed in his father's mind, and not as they were thought out by Ricardo. These facts can also be clearly shown by comparing the reasoning of Mill in his *Political Economy* with that of his father. The results of those early lessons remained firmly impressed, and it is seldom that the form of a purely Ricardian doctrine departs from the reasoning of James Mill.

It would be foreign to the plan of this paper to compare the writings of J. S. Mill with those of his father. The material for such a study is so accessible that any reader can do it for himself. But it should be kept in mind that the early part of J. S. Mill's career was in fields outside of political economy. The first epoch of his mature life was occupied mainly by the agitation which preceded the Reform Bill of 1833. During the second epoch he was fully occupied with his logical investigations. When, therefore, he finally turned his attention to political economy, a whole generation of writers on political economy had intervened between Ricardo and himself. They had materially enlarged the content of the science, and had changed the emphasis from problems of prosperity to those of distribution

and value. Mill tacitly accepts the results of their investigations without doing them justice for their services to the science. He was, perhaps, unconscious of the influence upon himself of the ideas of these writers, and of the logical method of his father. He thus attributed to Ricardo ideas foreign to the time in which Ricardo lived, and a method of reasoning out of harmony with Ricardo's concept of the industrial world. In this way Mill was unjust both to Ricardo and to the economic writers who preceded him. At the same time he gave an interpretation to the writings of Ricardo which has misled subsequent economists, and prevented them from getting a correct idea of the development of economic theory during the first half of this century. Only through a fresh study of Ricardo's writings can we free ourselves from the erroneous impression of him created by disciples who were willing to identify his ideas with theirs, and thus be able to present a solid front to the supposed enemies of sound reasoning and correct methods of investigation. Happily, deductive economics no longer needs the united support of particular doctrines to impress its value upon the public. No valid reason remains, therefore, why the writings of each theorist should not be studied in an historical spirit, and the influence of each of these writers be fully appreciated and correctly interpreted.

THE ECONOMIC CAUSES OF MORAL PROGRESS[1]

IN clearing away the obstacles that have obscured economic laws, the economist is forced to investigate all the problems that cluster around industrial life. He cannot get at the secret springs of economic activity without going beyond the limits which, in a strict sense, bound his science. When the tendencies were strong in economics to seek a physical basis for all economic theories, he was forced to become a physicist, and even an agricultural chemist, in order that he might determine the principles which regulate the production of wealth on its physical side.

Of recent years a strong tendency has arisen to lay stress upon the subjective side of economics and hence the economist has become a psychologist and has investigated many psychological problems which have been neglected by psychologists with metaphysical tendencies. Out of all this has come a new method of psychological investigation and the formulation of laws that throw new light upon some old problems, the solution of which was not possible by accepted methods.

With the vantage ground thus obtained, I desire to re-examine the principles of ethics and to modify them by the new doctrines that have arisen from investigations purely economic.

Ethics in the past has been closely associated with transcendental philosophy and has borrowed its terminology, ideas, and concept of mental activity from that mode of thinking. A large part of the same phenomena has been investigated by economists, men of instincts and education other than those possessed by the group of thinkers called philosophers. It is, therefore, no matter of wonder that these two essentially different types of thinking should use different terms to express similar ideas, nor that there should be a liability to confusion when they meet upon the common ground of ethics.

Looked at from a philosophical point of view, moralists are either intuitional or utilitarian. This distinction, however, cannot serve as a basis for the present paper, because it does not discuss the origin or binding force of the moral standard; it merely points out the changes in the degrees of utility which at different times accompany a given act and the effect of these changes on the conduct of individuals. Here is a sphere which belongs properly to economists and in which they can justly demand the attention of moralists. From an economic standpoint, both these schools of morals are types of a mode of thinking which prevailed under primitive conditions,

[1] Reprinted from *The Annals of the American Academy of Political and Social Science*, Vol. III, pp. 129-49, 1893.

before industrial affairs assumed a dominant place in society. I shall call this mode of viewing moral questions, primitive morality, contrasting it with social morality, the morality of an industrial society. Both kinds of morality are, in a measure, social, because moral actions are always modified by the economic environment, but the want of a better classification compels me to use the latter term in a more limited sense to denote the type of morality consciously associated with economic activity. How, then, are primitive and social morality to be distinguished?

Morality is intimately connected with pleasures and pains. Certain actions give us a surplus of pleasure and we are inclined to choose them. If right conduct always gave the greatest surplus of pleasure, our choice would be simple, and there would be no science of ethics. But too often the surplus of pleasure seems to be on the side of wrong action, and then the ethical difficulties begin. How can the mental attitude in this case be so changed that the surplus will be on the right side?

Let us suppose that the wrong action gives fifteen units of immediate pleasure, with which are associated two units of pain, and that the right action gives thirteen units of pleasure, from which must be deducted three units of associated pain. Here plainly the tendency is in the wrong direction. How shall it be corrected? One way is through asceticism. The actor is inculcated with a philosophy that leads him to despise pleasure; he relinquishes worldly aims and ambitions; and emphasizes the love of virtue for virtue's sake. This mental action, when carried to an extreme, causes men to abstain from economic activity. It leads men to avoid, at any cost, all influences which can create temptation and encourages them to pass a life absorbed in meditation. In these and many other ways this doctrine seeks to reduce the surplus of pleasure on the side of wrong, so that the surplus of pleasure will be on the side of right, thus insuring the proper action.

Another way of reducing the surplus of pleasure on the side of wrong is through an emphasis of the requital for bad conduct. With bad actions are associated the evil consequences which flow from them, and in the mind is created a vivid picture of the ultimate effects of bad actions. Hence, when the individual is prompted by the thought of a surplus of present pleasure to enter upon some evil deed, the association of future pains with the evil act reduces the surplus of pleasure which would come from it, thus strengthening the motive for right actions.

The idea of requital for evil deeds is impressed upon us mainly from two sources—the discipline of consequences and our criminal law. The unavoidable consequences of evil deeds have given rise to the theory that nature inflicts a proper punishment for the breaking of her laws. The doer of evil in some natural way meets a fitting requital from the moral order he has violated. The loss of friends and property, sickness, suffering, and similar misfortunes form prominent elements in the plan of natural retribution and show that the acceptance of a wrong moral principle necessarily re-

sults in the destruction of the evil doer. This kind of morality is best expressed by the early literature of the race, which pictures men in simple environments without fixed institutions; and by simple lessons from science, especially from physiology.

The progress of civilization has brought the State into the foreground as a great source of requital for evil. We are not willing to wait until the natural retribution falls upon the head of the evil doer but desire to inflict some present evil of sufficient magnitude to hold him and others in check. A penalty, therefore, is attached to each crime through which the evil act has a surplus of pain instead of pleasure. Every system of jurisprudence has this thought as its basis. The punishment for each act must be painful enough to deter the doer of evil from his intended act; but not so great that he should prefer to commit a great instead of a small offence.

The early types of morality thus seek to secure a conformity to the moral law in two ways: by educating the actor, through some form of ascetic doctrine, to be indifferent to pleasure, and by associating evil results with the keen pleasures which so often lead the actor astray. It should be noticed that both of these remedies act primarily upon the surplus on the side of wrong conduct. They tend to reduce the pleasure of living by shutting out one class of pleasures without offering any substitute for it. The right action gets the excess of pleasure on its side, not because of any increase of the pleasure from it, but because of a decrease of the surplus pleasure from the wrong action. The natural inclination of the culprit to do the wrong may be as strong as ever; he merely yields to the superior force of society and sighs for a world in which his stronger desires can be gratified without any restrictive conditions.

That the moral regeneration of the world demands more than this unwilling conformity to the moral law is recognized by all, yet, so long as the current ethical systems with their primitive conceptions maintain their ground, just so long will that regeneration be retarded. A conscious recognition of new conditions could hardly be expected from those who are imbued with ascetic ideals but even so noted an iconoclast as Bentham got no further in his solution than to attach a penalty to wrong action large enough to cause the actor to choose the smaller pleasure which right action is supposed naturally to give. He did not seek for any laws determining the increase of utility, but assumed that the pleasure of wrong action was so great that some requital from society was needed to reduce the net pleasure of wrong actions below that obtained from right actions. In this way his system became merely a system of jurisprudence—a necessary adjunct to the natural requitals which nature inflicts for the violation of her laws, not a system of morals in the true sense of the word.

These errors are the natural outcome of the education and environments of the early moralists. Ethics has always been regarded as a part of philosophy and philosophers have confined themselves too much to introspective methods. They are inclined to believe that elements are fixed, which an inductive

method would show to be changing. The laws of utility which lie at the basis of morality have never attracted the attention of philosophers. Though a part of psychology, they have been overlooked by psychologists, while economists from the necessities of their investigations have been compelled to devote much attention to these laws. In this way studies which are purely economic have helped to clear up a neglected part of morals, and thus may assist in laying the foundation of true ethical science.

Economic theory can throw light upon moral problems if it can show how the higher pleasures obtain the power to resist strong passion. It can thus show how moral ideas grow, or under what conditions the conscience becomes more efficient. If the same psychological principles act in the consumption of wealth as in morals, moral progress must depend upon the same conditions as economic progress. The mechanism of economic progress is best seen in the theory of consumption, especially in discussing the standard of life. I desire, therefore, to call attention to this part of economic theory and to formulate a few of its laws as a basis for subsequent discussion.[1]

I. Complementary Goods. The pleasure secured from an harmonious group of articles is much greater than the sum of utilities which can be obtained from their separate consumption. The pleasure derived from the consumption of each article is not a unit separate from the pleasure derived from every other article. Meat, bread, potatoes and coffee consumed at one meal give greater pleasure than if each article were consumed in isolation. A suit of clothes, harmonious in color and form, gives a greater utility to its possessor than the same articles would give if they were not adjusted to one another. We seek to unite isolated articles into harmonious groups so that their utilities may blend. There results a synthesis of mutually complementary elements, the joint utility of which is greater and more intense than the sum of the separate utilities of its components. Goods do not form a complement[2] in consumption unless the gratification derived from the group as a unit is greater than the sum of isolated utilities of the parts making up the group.

II. The Imputation of Utility. As the utility of each complementary group is greater than the sum of the utilities of its parts, we must impute to the parts a higher utility than they would have in isolation. In fact many articles which consumed alone would cause pain, as a part of a group can have a high utility imputed to them. Salt, pepper, and other condiments are notable examples of this class; being by themselves sources of pain, all

[1] See Patten, *The Consumption of Wealth* and *The Theory of Dynamic Economics.* Nos. 4 and 11 of the *Publications of the University of Pennsylvania, Political Economy and Public Law Series.* [For the latter, see supra p. 33 ff.]

[2] The word "complement" is here used to convey the idea of an harmonious grouping of goods through which, by the blending of the utilities of the separate articles, a higher utility and a greater amount of pleasure is obtained. This is but an extension of the recognized meaning of the word in the expression a "full complement," that is, a complete and perfect group.

their utility in the group is imputed to them. The imputation of utility is a subjective act, depending upon the fact that complementary goods afford more utility in their joint consumption than in isolation. We must distribute the added utility among the members of the group in some way that will satisfy subjective feelings. The primary principle upon which we act seems to be that we impute to each article the difference in the total utility of the complement with and without the articles in question. This principle must be modified by many secondary laws which need not be discussed, as their consideration is of little moment to the subject in hand.

III. The Mechanism of the Standard of Life. The key of economic progress depends upon the measure of the standard of life and upon the laws that determine what articles or groups of goods shall form a part of the standard. We try to distribute our income so as to give us the maximum pleasure. No article or group will remain a part of the standard unless the excess of its utility above the cost is about the same as that of other parts of the standard. The primitive man has but few intense pleasures and only a few goods that are really complementary to one another, while the cost of most goods is so great that they are shut out of use. Under these conditions the standard of life will be low, because few articles will give enough surplus pleasure over cost to create a sufficient inducement to procure them. But, as soon as the primitive appetites and passions are weakened and the formation of new groups of goods increase the surplus of utility derived from them, the excess of pleasure above cost becomes, in many cases, so nearly equal that the articles or groups become a fixed part of the standard of life. The new pleasures will be as strong as the old and there will be no tendency to reduce the variety of consumption even if industrial depression makes temporary reductions in the income.

IV. The Relative Size of the Complementary Groups of Pleasure and Pain. It is a fact of importance that groups of pains are much larger than those of pleasures. It is easy for any one to aggregate all the evils of life and impute the whole group to some one cause. It is not uncommon for persons to impute to several causes in turn the aggregate of pains from which they suffer. The applicant for a pension may be honest in thinking that his service in the army is the cause of all the evils from which he has since then suffered. In this way the evils of life are exaggerated and in many cases a surplus of pain is created where a more accurate method of accounting would show a surplus of pleasure. The groups of pleasures are relatively small and cannot be easily increased. In a large complementary group of pleasures each seems unreal and usually they remain a mere aggregate and do not blend into a single unit, the utility of which would be much greater than the sum of the utility of the isolated parts. The progress of civilization tends to enlarge these harmonious groups of pleasures, but, as yet, this progress has been so limited that they are yet much less in size than those of pain.

The larger relative size of our groups of pain is due to the survival of

feelings from primitive conditions. Our complementary groups of pain are more instinctive than those of pleasure and the association of ideas with pains is also stronger and more vivid. The original state of war that Hobbes emphasizes points to a primitive condition where the instincts to guard against enemies were more important than those that led men to seek pleasure in one another's company. The early economic conditions also strengthened this tendency. Where the food supply is irregular, the imagination is usually the most active faculty. Fasting or starving intensifies the unreal vision of a strong imagination. In such a state a man can more readily throw all his evils into one complementary group and impute them to any chosen source. A regular food supply weakens this kind of imagination. The consumer now lives more in the present and the chain of evils that affects him is shortened and broken.

The increase in the sum of pleasure which society has to enjoy, or—to express the idea in economic terms—the increase of the standard of life, depends upon these four economic causes. The simple pleasures of primitive life depend mainly upon sensation. By association we learn that certain articles are harmonious and with them we form complements through which the pleasure of the articles is greatly increased. Certain inharmonious articles are eliminated from consumption or are, perhaps, united into groups of their own, in a way that will not interfere with the leading groups with which they are out of harmony. It is usually the case that when two small groups are united into one, through progress in consumption, some article must be omitted or the increase of total utility due to the formation of the larger group will not be secured. In increasing the variety of food, the pleasure obtained is not merely the sensation of eating, but the pleasant feeling of increased utility which follows the meal. The digestion of the food determines largely the sum of pleasure due to the meal; and if two groups, each an harmonious unit, are discordant when consumed together, not only is the pleasure of the meal reduced, but the consequences may be disastrous.

Perhaps the best illustration of discordant groups is furnished by the sour, heavy foods that harmonize with strong liquors and the diet of the abstaining classes in which sugar occupies a leading place. With a free use of liquor, coarse food can be washed down and digested, but such food will not harmonize with a free use of sugar. A marked opposition thus arises between a liquor diet and a sugar diet and consumers are forced to choose between them.[1]

The raising of the standard of life involves, therefore, the ejecting from our consumption of articles out of harmony with the new conditions, though these articles are often those that, by themselves, were sources of great pleasure. The choice must be made between the pleasure of some single article and that of some complementary group of goods which tends to

[1] See Patten, "The Economic Basis of Prohibition," *Annals of the American Academy of Political and Social Science*, July, 1891.

displace that article. The primitive man gets his pleasure from some one or few articles and adjusts his other consumption to this pleasure. The civilized man, however, ejects those leading pleasures which depend mainly upon sensation, choosing instead larger groups, the parts of which separately have less utility, but, being harmonious, give a larger total utility. The disuse of liquor and tobacco by so many individuals is a notable instance of the change of which I speak. These articles are sources of great pleasure, but are so inharmonious with the consumption of sugar and other articles, which enter into large groups, that there is a rapidly increasing tendency to omit them altogether. The steady decrease in the use of vinegar and of fat foods has the same explanation.

It also seems possible that there will arise as marked an opposition between the use of meat and milk as there is now between liquor and sugar. A century ago the diet of the common people was largely vegetable, meat being used only on rare occasions. Under these conditions milk and other dairy products were the main source from which animal food could be obtained. Such articles, therefore, were largely used to give relish to vegetable products, milk or butter being a leading element in most kinds of seasoning. The recent improvement in economic conditions has made meat the basis of the diet of all classes, and, as a result, dairy products do not furnish an element of which there is a lack, but one that is already well supplied from other sources. Milk, moreover, sours so readily that it does not unite easily into large groups, such as are now the leading elements of our diet. It had its proper place in the diet of our ancestors, but must be ejected from our own if we mean to avail ourselves of the choice which there is now between the best groups.

I mention these seeming irrelevant facts to show the conditions upon which a higher standard of life depends. It is not necessarily a choice between articles good or bad, nor is it merely the element of cost that determines the standard, but it is a choice between small and large groups. When larger groups are formed by uniting the smaller groups into one, some of the leading elements of pleasure in the smaller groups, perhaps the main element, must be thrown out so that the consumption may be harmonious and the total utility increased.

Viewed from an economic standpoint, the difference between a good and bad consumer lies in the willingness to eject elements from the consumption which do not unite readily into large groups. Some consumers accept the increasing variety which improved economic conditions permit, and from the new articles as well as from the old get the pleasurable sensation which their consumption affords. They lose in this way the greater pleasure which the formation of their goods into complements would give and suffer, in addition, the ultimate results which flow from an inharmonious consumption. The good consumer ejects the discordant elements, forms larger groups, and gets the greater pleasure, present as well as future, that follows his wiser action.

A correct imputation of utility is a great aid to this end. Suppose two groups of three articles each can be united into a larger group if article A of the first group be omitted. Articles A, B and C of the first group give respectively eight, six and four units of pleasure; D, E and F of the second group give each five units of pleasure. Because of the greater harmony of the consumption, the new group without A will give forty-five units of pleasure. Of these forty-five units, twenty-five are fixed and belong to the five articles according to the pleasure derived from their separate consumption. The other twenty units, however, result from the harmony of the larger group, and this amount must be imputed by the consumer to the five articles in whatever order he may determine. If he distributes it in the best manner, each of the five articles will have imputed to it a utility of nine units. Then, as each of the five articles has a higher utility than A (eight units), there will be no inclination to break up the larger group to get the pleasure of consuming A. The larger the group the more pleasure can be imputed to any one element, thus increasing the power to resist any disintegration of the group into smaller parts, in each of which some crude but strong pleasure is the dominant element.

The necessity of renunciation upon which moralists have put so much emphasis, arises from the need of giving up single intense pleasures to acquire a complement of pleasures, weak in isolation, but strong when united into an harmonious group. When the new complement is formed and the imputation of utility changed to correspond to the new condition the need of this particular form of renunciation ceases. The new complement will have a greater surplus of pleasure than the old passion had and will naturally be chosen.

I have described in full the conditions that create a higher standard of life, not because the economic and the moral standards are the same, but because the same psychological principles act in each case. Moreover, there is no distinct line of demarcation between the two. The small and simple groups that are plainly economic, first attract the attention of the consumer and then he begins to appreciate the larger groups in which the moral and economic blend, finally reaching the largest groups that are distinctly moral. They are all created on the same plan and have their growth conditioned by the changes in the mental organization of the race which accompany its progress. As the smaller groups unite to form the larger, there are always discordant elements to eject and a sum of added pleasure which must be imputed to the several members of the new group. Thus the consumer becomes a better consumer, or, if we have passed into the groups which form the ethical world, the moral judgment and conscience become more active elements in forming our characters.

Of the groups partly economic and partly moral in their character, perhaps the most powerful is that we designate by the word "home." A home is not a simple pleasure, but it is a great group of many pleasures, so many that it would be impossible to describe them in detail, and yet the word,

with the meaning we attach to it, is of modern origin. It is said that many languages are without it. This means that in early times, and in many nations at present, the numerous pleasures that are now blended in this group were isolated pleasures or members of small groups associated with other objects. Yet a process of ejection and of amalgamation of pleasures has gone on until the new complement is strong enough to be able to hold in check the strongest of the passions. It has modified many pleasures, changed their character, and has also created many which could not have arisen under other conditions.

A similar ideal is conveyed by the word "comfort." We want to possess just enough of each article in daily use so that a harmonious whole may be formed. In this way a complement is formed through which a multitude of little conveniences and pleasures are made a part of the standard of life. The term "credit" denotes a powerful complement which has been created by conditions which are purely economic and yet in time have assumed a moral aspect. "Saving," in the beginning a purely economic ideal, has now so many pleasures resulting from it, that few complements are so interwoven with our whole social prosperity. Cleanliness also is not a simple pleasure, but is a complementary group which has grown up out of economic conditions. Without any distinctively moral backing, it has radically changed our consumption, and, perhaps has been the cause of ejecting more discordant elements than any other means.

Our political ideals are also rapidly becoming groups of importance. The term "nation" brings up many of our growing pleasures which are uniting into a single group. The feelings that most people have for the city in which they live are destined to grow even more rapidly. Our parks, streets, and public buildings, as well as other features of city life, create in us strong feelings which in time will become parts of a single complement. Then we shall eliminate from city life many of those disagreeable elements which are now a necessity because they are prominent parts of the smaller groups of pleasures that influence its citizens.

The churches and schools are also growing social complementary groups which are centering about themselves strong pleasures that otherwise would be weak isolated feelings. Like other complements, they help us to suppress many discordant elements which are controlling forces so long as the groups of pleasures are small. We must always weaken by disintegration some strong feelings before new and larger complements are formed. Our strong primitive feelings are the obstacles that prevent social progress.

From the foregoing it will be seen that there are, in morals, two active instincts or principles with two underlying conditions accompanying their working. The latter come from the economic world, the former, though also active there, are seen in their purest form in morals. The conditions to morality lie in the size of the complements of pleasures and in the equality of the pleasures forming the complements. The principles shaping the action of the will are the ejection of discordant elements and the correct im-

putation of pleasures. The economic creates the possibility of the larger groups of pleasures, while the moral drives out the discordant elements, through which alone the formation of larger groups is possible.

The growth of the instinct to discard inharmonious elements from our consumption aids in the acquirement of a tender conscience; this being the name we give in morals to the instinct to eject discordant elements. The moral ideals are formed on the same plan as the complimentary groups of our consumption. We create in our imaginations ideal conditions where many of the pleasures of life are brought into one group. The elements of this group are collected from widely different and conflicting sources which cannot blend into one unit until some of the elements are dropped from the picture and others are reduced to a more subordinate place. Only those who have acquired the habit of summarily ejecting discordant elements can form the highest ideals or have the character needed to realize them.

The imputation of utility is also active in the formation of moral ideals. When a moral element is associated with a complement of goods, most of the utility derived from them may be imputed to it. With the progress of civilization each of the virtues enters more of the complements of pleasures, and as the moral ideals become distinct and clear, the various complements of goods are bound together through their moral elements. A moral complement is formed which aggregates in itself the whole utility of living. It is therefore possible to impute to any act a sum of pleasure greater than what can be derived from violating the moral principle. The doing of the right now becomes natural and the will is said to be strong.

It is, however, a mere figure of speech to talk of a weak will or a strong will. Wills differ not in their strength, but in the motives that control them, and the conditions under which they act. Wills do not grow like muscles. They show their superiority by the forethought they exercise in creating a protection against a sudden rise of passion. Ethical education is an education not of the will, but of the instincts and tastes that influence its action. An equilibrium of motives must be acquired before the will can act properly. The motives must be brought into harmonious relation and be of equal strength before the moral character reaches its perfection. The will is always weak when compared with the strength of our prominent passions. If we wish to turn the scale in the right direction, we must get an equilibrium among the lower motives and have the instincts properly developed and balanced.

Primitive morality pictures the will like a strong house, braced and barred so as to withstand every blast of the storm. Social morality would picture it like a house protected by a forest. The wind can whistle around it, but its force is broken so that it can do no harm. The former attributes to the strength of the will what the latter gives to its forethought. The one makes it, in a measure, a physical quality; the other emphasizes its subjective nature. But the will is not to be thought of as passive, it is always active, though its leading activities are indirect. The productive power of an individual de-

pends not so much on his muscular development as on the indirect preparation for the work, on his stock of goods, tools, buildings and materials. So, in consumption, the moral action depends not so much on the strength of the will, as on the size of the complements that have been formed by the indirect action of the will. These large complements are the result of the will's action in ejecting discordant elements, and in imputing the added pleasure in a way which makes the surplus of pleasure from these groups greater than from the older and smaller groups. If this work has been properly done, the choice of the right action is as easy as it is for a capitalist with his saving instinct properly developed, to choose the best form of production, when the choice involves greater or smaller quantities of capital. The creation of these complements is to the moral man what the tools and machines are to the workman. They change the line of least resistance, and enable results to be secured, which, otherwise, would be obtained only with great effort, if at all.[1]

We can now return to the leading idea of the paper, with the hope of making some applications to the ethical training of children. Two plans are possible, by which right conduct may be encouraged. On the one hand, the requital for evil deeds may be emphasized, a vivid picture of future punishment created, and thus the pleasure of the wrong action can be reduced by its associated evils, until the greater surplus of pleasure is on the side of right action. On the other hand, the pleasure of right action may be increased by enlarging the complementary groups of pleasures, and thus the instincts and motives that induce the actor naturally to choose the right are strengthened. The first plan is best realized in our moral literature and criminal law; the second, in our economic activities.

Simplicity, and not variety of pleasures, is represented in our moral literature as the highest ideal of life, and thus the large complements of pleasures that are mainstays of a higher morality are concealed from view, or even worse, through the influence of ascetic ideals, pleasures as such are despised, and our complements of pleasures are reduced in size. The simple virtues of primitive men, with their strong passions and crude pleasures, are held up as models, when the more refined characters of modern life really possess a greater educational value. The young have been held to the right through their imaginations, and the fear of the natural requital for evil deeds; the mature, who have passed beyond the imaginative period, by their fear of the criminal law.

The reduction of crime, however, is due more to the increase of economic activity, and to the consequent possibility of regular employment, than to the rigorous enforcement of our laws. Three solid meals a day break down the sympathy with theft, destructive revenge, and other crimes against property and good order.

The increase of our economic activities, moreover, changes the associa-

[1] Compare with De Garmo's "Ethical Training in the Public Schools," *Annals of the American Academy of Political and Social Science,* March 1892.

tions we have with the future. The primitive man associates pleasure with the present, and retribution with the future. The economic man thinks of the future as the place where he can realize the pleasure for which he is now preparing. The first man enjoys to-day and suffers to-morrow, while the other works to-day and enjoys to-morrow; his capital, the future goods of to-day, will then be his present goods, and ready for consumption. The imagination of the one will fill the future with horrid pictures of suffering which face him as a retribution of his past deeds; the imagination of the other creates an economic paradise where he will be exempt from present woes. Will the same literature serve as moral food for both of these classes? Must it not differ in character as widely as Dante's *Inferno* does from Plato's *Ideal Republic,* or Bellany's *Looking Backward?*

Thus, in spite of the emphasis given to the primitive ideals and to the kind of imagination they demand, it is doubtful if the moral progress of modern nations is due to these agencies. The trend of events was against the popular remedies for moral evils, and, if they had been the only force in action, there might have been a retrogression instead of a progression. The unseen growth of economic forces, however, has more than compensated for this possible loss. The larger complements of pleasures have made us moral in a natural way. With a greater surplus of present pleasure gradually forming upon the side of the right conduct, we have less need of an appeal to motives that revive our primitive feelings, and force us to fight the moral battle without the protection that our present economic environment can give.

The moral education should begin with lessons from the economic world because the mechanism of mortality is the same as that of the standard of life. Economic activity exercises the faculties which, at a later period, become moral. This education should begin with the small groups of pleasures which are vivid realities to the child, and seek to unite them gradually into larger complements. In this way, not only will the sum of pleasure be greatly augmented, but, with a more correct imputation of the pleasure that comes with the change, a natural bulwark is created, by which the isolated but strong animal passions are held in check. A habit will thus be acquired of ejecting from the consumption the discordant elements which prevent the formation of larger complements, and this habit will greatly strengthen the conscience when moral acts are in question.

This transformation of the consumption should be made on purely economic grounds. Each small evil should be associated with the concrete complement where it usually appears; and should not be allowed to amalgamate with other evils, forming a group so large as to disturb the normal order of the consumption. A great principle should not be brought in for a small end. Instead of using up the force of purely moral motives in getting the mechanism of morality in working order, economic motives which appeal to the same psychological principles should be employed, and the former reserved for

a later period of a child's development, when he is more conscious of the subjective forces moulding his character. Conscious ethical training should be delayed until the economic motives are working in a normal way and have created the largest complements that the economic world can give.

Manual education furnishes an excellent means for this end. It brings psychological principles into activity that are essential in morals, yet it secures its results by an appeal to motives that are active in the child. The pleasures it creates are at first weak, but they readily become parts of large complementary groups and thus control our actions. A greater variety is needed to satisfy the consumer trained in this way and he notices more quickly the lack of harmony which the absence of certain elements causes. The growth of artistic feelings creates a great complement of all the qualities seen by the eye; manual skill brings the different forms of construction into relation with one another; and cooking unites in the same way the various kinds of food.

The different ways in which paper can be folded causes the child to think of the various geometrical forms as one complement and he finds a greater pleasure from the harmony which he discovers through comparison. In sewing, the different kinds of stitching help to unite our clothing more closely into a complementary group. Complex associations arise which greatly increase the pleasure of the whole. It is easier to pass by association from one form to another and hence a defect is more jarring and a harmony more pleasing. The propensity to cut and destroy comes from the small size of the groups of pleasures which the boy enjoys. If he associated in one group all the pleasures of the school room, a desire to injure the furniture would be held in check by the thought that it was a part of a group of pleasures and that he would reduce the pleasure of this group more than he would gain by his destructive act.

Compare the pleasure of a fisher and an observer of fish. The fisher thinks of the fish merely as a means of momentary enjoyment, a sensation with no associated pleasure. If he succeeds in landing the fish on the bank of the stream, the pleasure is complete. To the observer of fish, however, it is a part of nature. The brook, the trees, the birds, and other elements of natural scenery would lose a share of their beauty if the fish were absent from its place. His pleasure derived from nature is a unit due to the many pleasures that have blended into one complement, and no element can be lost without a serious reduction of the aggregate pleasure.

It is always possible for the teacher to aid his pupils in enlarging their groups of pleasures. Their capacity for enjoying associated pleasures gradually increases with their age and the teacher must be active in showing the natural groups into which their pleasures will unite. They must also be taught to eject the discordant elements which prevent the union of small into large complements. Too often the pleasures of children remain mere aggregates of sensations of a low character because they are unconscious of the increase of pleasure which a harmonious consumption will give.

In relation to the food supply there is a vast field for instruction. The grouping of food into the best combinations and the ejection of discordant elements are both matters of the greatest importance. Children should be taught how coarse foods and strong drinks would keep them from a full appreciation of the best combinations of food and they should be helped to form the habit of rejecting crude, isolated pleasures which prevent the formation of these larger groups. In this way they will not only be better consumers of food, but also they will get into working order the moral mechanisms upon which their ethical character will depend. Whoever would make mankind moral in a natural way must make his beginning and get his mechanism into operation in the economic world.

THE SCOPE OF POLITICAL ECONOMY[1]

IT has been customary to treat the scope and method of a political economy as parts of one investigation. In this way the method of the science has received the conscious attention, while its scope has got but a few passing remarks. The student fails to realize that the scope of a science is really as fundamental a problem as its method, and that the latter depends on the former for many important premises. Customs and habits of thought, inherited from the past, lead us to group particular discussions together, calling the arbitrary line that separates them from other groups of problems the boundary of a science. With this limitary line once fixed by the arbitrary notions, perhaps of some great man or group of men, succeeding writers accept the prescribed limits without question, thus keeping the content of the science within such narrow limits that both its method and the character of its doctrine are pre-determined.

The boundary lines between the various social sciences have not been fixed by any systematic study of their relations nor by any logical order of sequence. They have their place in history because of the practical interest which social reformers have had in them as means of securing progress, or at least as a means of maintaining the existing social order against retrogression or decay. Each succeeding social science has had the same aim—to give new sanctions to the progressive forces of society. Each science, however, has succeeded in conquering but a section of the general field of social science, and this section it holds against its newer rivals. Religion, morality, natural law, politics, and economics have arisen to answer the one supreme question: What is the binding authority to which appeal can be made; for which men will have respect? For a time, the potent force that held men and nations in peaceful relations was religion. When its authority began to decline, an appeal was made to moral principles, in the hope that they would increase the respect for law, and thus advance the interests of social progress. When this hope failed, resort was had to natural law, to politics, and finally to economics; and from each of these sciences, laws and practical rules were secured that have helped to resist the forces that tended to dissolve society, and in many cases have been real causes of social progress.

But these efforts have not been well coördinated. On the contrary, each movement has been independent, and, for a time at least, has attempted to cover the whole field of social reform: while between each group of workers there has been usually a spirit of opposition, due to differences in the instincts and motives which have prompted them to action. Since the time

[1] Reprinted from *The Yale Review*, Vol. II, pp. 264–87. November, 1893.

of Malthus there has been an open war between the economists and the believers in moral and political reform, while the aims and plans of these moral and political reformers are usually at variance; even religion and morality are too often in conflict, as is shown by the causes which led to the death of Socrates and the silencing of Kant. Under these circumstances there could hardly fail to be a conflict as to the scope of each of the social sciences. Each science has seized all the ground it could, and has spent more energy in defending its title to what it has, and its claims to what it has not, than in utilizing the resources that lie within its own undisputed realm.

The history of economic theory shows most clearly the effects of this conflict regarding the scope of the science. As it was the latest of the sciences to appear, it found its rivals well fortified in all the regions they cared to occupy. The phenomena of wealth had been neglected because of the antipathy that social reformers had to wealth getting, which they looked upon as a source of evil. Therefore, it was a sort of no man's land, which fell to the possession of the economists. It seemed to be a barren region not worthy of occupation, and yet, when developed through the genius of the Physiocrats and Adam Smith, it proved to be one of the richest fields of investigation, and, at the same time, a potent cause of social progress.

The peculiarities of the present position of economics as a science did not become manifest until the beginning of this century, when Malthus and Bentham began their work. Up to this time social reform had been a prominent part of political economy. Everywhere Adam Smith is filled with the spirit of progress, and it is plain that he hoped for this progress largely through an appeal to economic motives. The results of the French Revolution changed the party lines entirely. The reaction against its outrages created an intense conservative feeling in all social matters. It is well known that the essay of Malthus on the principle of population grew out of a discussion on the general question of the improvement of society. His first essay on the theory of rent was prompted by the desire to defend the income of the landlord class. The law of diminishing returns was also a result of the same controversy, and soon became a leading argument for those who doubted the possibility of an upward movement of all parts of society. And the theory of capital became a weapon in the hands of the conservatives. The proposition that industry is limited by capital was used to prevent the government from furnishing the means to aid new efforts for social progress, while the wage fund theory seemed to justify the refusal of the better classes to participate in any endeavors to ameliorate the condition of the lower classes. In this way, the character of the doctrines to which the name economics was given became intensely conservative. In fact, no better bulwark could have been devised to resist the claims of those who desired social reform.

It would not be fair, however, to infer that the economists were unprogressive men. On the contrary, they were in many respects the most uncompromising radicals. The school of Bentham is practically the same as

the school of Ricardo. The unity of the two schools is not merely in the persons who formed them, but also in the means and arguments used to support their doctrines. The ground work of the utilitarianism of Bentham and of the economics of Ricardo did not differ; the same calculus of pleasures and pains lay at the basis of their arguments. But the one became a powerful means of accomplishing certain reforms, for which the English people were ripe, while the other became an even more powerful agent to resist the social reforms coming from France, to which the instincts and inclinations of the English people were opposed. Thus the progressive political economy of Adam Smith became an obstacle to progress, while the problems of progress were separated from those of political economy, and became associated under the newer term of Utilitarianism.

This artificial destruction, due to the practical condition of affairs in England during the Napoleonic wars, separated the static parts of economic doctrine from the progressive or dynamic. The term economic was thus artificially restricted to static economics, and dynamic economics became a part of ethics. Two sciences were made in a field where there should have been only one. The principle of the greatest happiness for the greater number is the same as the principle of utility in economics. They are both the expression of the same thought in two different classes of problems. Economics was confined to the production of goods—to the increase of material wealth. The greatest happiness principle was used by Bentham solely as a rule for the distribution of utilities, or, to put it negatively, for preventing the decrease of utilities. No theory based on this principle was used to show how utilities could be increased. The maxim that each person counts for one, and no person for more than one, is clearly the most potent part of the greatest happiness principle, and this is clearly a principle of distribution. In legislation, Bentham assumed that the only function of government was to prevent the waste or vicious destruction of utilities. Criminal laws should, therefore, be devices to protect the public from a loss of their utilities with as small a diminution of the utilities of the criminal class as would be consistent with public welfare.

There is another way in which the causes may be illustrated that separated the static from the dynamic problems of economics. Bentham and his school were much opposed to any argument that rested on an appeal to history, customs, or habits. They were, therefore, cut off from the usual arguments by which either conservative action was supported, or progressive action demanded. But, like all mortals, they were conservative in some directions, and radical in others. They found a justification for their conservative ideas in a static concept of economics which dealt merely with the production of material wealth. By uniting social progress with ethics, they were able to strip ethics of the sanctions inherited from the past, and yet to create in the greatest happiness principle a strong motive force for social reform.

This line of division, by which ethics became a theory of social progress,

while economics was reduced to a theory of the production of material goods, was strengthened by the popular belief that the pursuit of wealth was the source of moral and political degeneration. Economists were not to be blamed for not seeing the economic causes of social progress, at a time when money getting was supposed to be the root of all evil. They assumed, as did every one else, that the motive power of progress lay in other fields than economics—in ethics and religion.

Before the economic causes of progress could be clearly seen, the concrete concept of material wealth, capable merely of an increase of quantity, had to be displaced by the broader concept of utility, the units of which were not objective, but subjective. Economists were, however, not ready for this step. They readily assented—yes, even demanded—that all problems of social reform should be handed over to ethics, so that economics could be made a positive science after the model of the physical sciences. Problems relating to what is, it was claimed with apparently many good reasons, should be separated from problems relating to what ought to be. Yet, if we admit that these reasons are good, it has the very detrimental effect of separating the static parts of economic theory from the dynamic, and in this way the former have had their development retarded, while the latter have been put under conditions where their scientific study is impossible. For their study, it is true that another department, called "Social Philosophy," has been devised—a science that supposes that problems of social progress are more closely allied to politics, ethics, law, and religion than they are to economics. But, as yet, no good work has been done in this field, because of the complicated nature of the phenomena, when studied in these relations. It is mainly used as a logical device to outwit opponents, by making it the dumping ground for economic problems which cannot be handled by economists, while the scope of their science has its present artificial limits.

But "Social Philosophy" has been of some use in bringing into closer relation to economic discussions the social problems that Bentham and his school regarded as problems of progress and not as problems of wealth—in other words, problems that were discussed in relation to the increase in the general welfare of the community rather than in relation to the increase of wealth. Mill, for example, did much to broaden the scope of economic discussion, by using in his *Political Economy* certain principles taken from "Social Philosophy." Yet, it seems to me that the title of his book is misleading, because of a wrong conception of the scope of the science. He calls the book: *Principles of Political Economy with some of their Applications to Social Philosophy.* The reader would infer from this title that he meant to apply economic principles to social philosophy. In reality, however, he does a far different thing. He correlates the principles of political economy with certain principles taken from social philosophy. He thus introduces a much wider range of ideas and topics, but does not in reality assume a more practical tone, except in so far as

matters of social progress are more practical than those of social statics, He comes nearer to the life of the people, but not nearer to the details of that life.

I cannot see how Mill's discussions relating to social philosophy differ from his economic discussions, except that in the first case he measures subjectively in units of utility what in the second case he measures objectively in units of wealth. He is undoubtedly right in assuming that practical measures should not be judged solely by their effects on the quantity of material wealth. But I do not see how he departs from purely economic considerations in rejecting this standard. His error is in limiting economic science to such a narrow field, thus creating the need of a science to treat of problems of social progress. This separation is due to the artificial conditions of the period of Bentham and Ricardo, and, by ignoring it, Mill helped to restore that unity which social problems had in the time of Adam Smith, before utilitarian and economic considerations became parts of independent sciences.

The blending of Utilitarianism and economics into one science, however, cannot become complete, while wealth is measured solely in units of concrete material goods, and not in units of satisfaction. A subjective standard must displace the objective standard, which makes each unit of a commodity of equal importance with others of the same commodity. In the production of wealth, this objective standard is practically correct, since the producer thinks merely of the quantity he produces and of its value per unit. The law of indifference makes him regard the loss or gain of any particular unit of equal importance with that of any other unit. It is only in the theory of the consumption of wealth that the relative importance of different units of the same commodity becomes apparent. To the consumer, each additional increment of a commodity in its consumption yields a decreasing satisfaction, and upon this fact the law of marginal utility is based. The sweeping effects of the perception of this law upon economic theory is not, however, of so much interest in this connection as is the change that it has made in our concept of wealth and in the methods of its measurement. The distinction between material and non-material wealth has lost its importance. We join efforts directly with satisfactions, and think little of the concrete forms in which our efforts are embodied. Services and goods alike are to the consumer means of securing satisfaction, having their value measured by this satisfaction and not by the power to accumulate or to appropriate them. The distinction between productive and unproductive wealth is of value to the producer, who desires to save for others to consume, but not to the real consumer. In this way, the concept of material wealth as a concrete material fund, upon which production depended, and through which prosperity was measured, was displaced, and henceforth wealth had to be measured, not by its quantity alone, but, like any other utility, by the units of satisfaction it afforded.

The development of the theory of consumption furnishes also the means

for enlarging the scope of economics so as to include a theory of social progress. The first general law of consumption is that of marginal utility, resulting from the decreasing satisfaction that an increasing quantity of any commodity will give. The second law is that each consumer tends to distribute his consumption among the various articles at his disposal, so that the marginal utility of each article will be the same for all articles. From the action of this law we get the concept of a margin of consumption, which falls or rises as the supply of goods becomes more or less abundant. The third law is that the fall in the margin of consumption can be prevented by an increase in the variety of consumption. When more commodities are used, and less of a kind, the subjective value of the marginal increment of each commodity rises. Three increments of four kinds give more pleasure, and have a higher margin of consumption as a result, than do four increments of three kinds. The fourth law is that the margin of consumption is raised through harmonious consumption. There is a tendency to unite goods that are harmonious complements, from which the total utility is much greater than it would be if each part was consumed in isolation, or with other goods with which its consumption was less harmonious.

It should be noticed that the first two laws are static. They produce no change in the man or in society; they contain no element of social progress. It is otherwise with the results of the last two laws. They modify the conduct of each individual and thus influence society as a whole. The gradual increase in the variety of consumption, and the increase in the number and size of the complements in consumption, affect the very structure of society, continually creating new motives for social progress. *The essence of social progress lies not in the increase of material wealth but in a rise of the margin of consumption.*[1] Endeavors to raise the margin of consumption also bring men into other relations to one another than do efforts to increase the quantity of wealth. The increase of wealth demands a merely negative attitude. Men must be at peace with one another. The *laissez faire* policy must be supreme. On the other hand, endeavors to raise the margin of consumption, demand that the instincts, habits, and education of all the people should be the same. Social feelings arise which insist that every individual make his consumption conform to the best interests of society. If a person misuses his productive power, the evils fall mainly upon himself. But, where a consumer misuses his wealth in consumption, the evils fall primarily on society, and he suffers merely as a member of the society he has injured. An exclusive, unsocial form of consumption may add at times to the pleasure of the individual consumer, but it takes much more from the surplus of society than he can gain by his unsocial action. Purely economic considerations create a standard of consumption, the violation of which on the part of the individual

[1] See Patten, "The Economic Causes of Moral Progress." *Annals of the American Academy of Political and Social Science,* September, 1892. [In this volume, pp. 164–177 supra].

lowers the margin of consumption, creating evils as great as those flowing from a reduction of saving or from a decline in intelligence and skill. Self-interest prompts men not only to create wealth, but to enter those social relations in which the marginal utility of this wealth will be the highest. All desires, therefore, are not equally legitimate, even when measured by an economic standard, and the principles of utilitarianism become incorporated in economics. If it is strictly economic to strive to increase the quantity of material wealth, it is also strictly economic to strive to prevent the fall in the margin of consumption through a greater variety or through larger complements of goods. Both actions have the same end —the increase of utility. The same motive that would cause a man to produce more goods would lead him to increase the variety and enlarge the size of the complements in consumption. If a man by self-interest alone would produce a new article from which he obtains six units of pleasure, self-interest will also prompt him to a second action, if the increasing of the variety of his consumption will also add six units to his pleasures. In both cases predictions can be made. The social changes resulting from the cheapening of sugar, for example, are as certain as are those which follow the practical use of electricity. The only difference seems to be that, in production, the results of such changes show themselves more quickly because production is so often under the control of a few intelligent men, while changes in consumption involve action on the part of the great mass of the people.

There is another effect of viewing wealth as units of satisfaction, instead of as units of commodity, that should be noticed. The utility of an article may be of such a character that it cannot be measured. The first increments of many commodities are necessary to life, and their utility cannot be measured by the amount of pleasure which their consumption directly yields. Bread and water in a desert or a boat at sea are examples of such utilities. As soon, however, as the supply increases beyond the point of absolute necessity, the utility of any additional increment is measured by the addition which it makes to the welfare of the consumer. The first class of utilities are absolute utilities. They cannot be replaced nor added together to make a whole. The second are positive utilities. They can be measured and are capable of addition. And it is only in them that social progress can be measured.

It is necessary to assume the absolute utilities as a constant factor, when comparing two stages of civilization, and then to measure their merits by the difference in the sums of the positive utilities which are parts of each of the two stages. Thus if one stage gives A (absolute utilities) + 6 units + 4 units + 10 units of positive pleasure, while another stage gives A + 7 units + 3 units + 8 units + 5 units of pleasure, it is assumed that the second stage is better than the first. No direct comparison, however, of those two A's is made. They must be assumed to be the same, if we are to reason about the relative merits of the two stages of civilization.

The same limitation holds true of utilitarianism, both in the field of

morals and in that of social reform. The sum of pleasures and pains which is measured is not the whole pleasure of living, but the additions to this whole pleasure or subtractions from it which are the effects of particular acts. Bentham does not recognize the difference between absolute and positive utilities. He ignores the former, or at least measures them only through their effects in increasing the sum of positive utilities. Thus, honesty as a virtue is an absolute utility, incapable of direct measurement. The indirect effects of honesty, however, are positive utilities, for honesty leads to an increase of wealth, and this increase is capable of a positive measurement. In practical problems the older utilitarianism neglected these absolute utilities, and treated only of the gains and losses of utility which resulted from individual acts. The formula for reasoning about these acts is the same as the economic formula for measuring the results of social progress. We have an A or a series of A's in each of the sums compared, and assuming these A's to be the same in both terms of the comparison, the beneficial or detrimental effects of an act can be measured by the change in the sum of positive utilities.

This similarity of the methods of reasoning in economic and utilitarian discussions proves in another way that the two supposed sciences are really one. They are, as has been shown, in reality, the statics and dynamics of the same science, separated from one another by the peculiar condition of English thought in the early part of this century. When the basis of economics is broadened by making the unit of measurement subjective, and the basis of utilitarianism narrowed by separating it from ethics, the unity of the two, both in the method they use, and in the field they occupy, becomes apparent. We may call our science what we will, but there is only one science for measuring the welfare of society and its progress through the gains or losses of those positive utilities which men create or destroy.

The relation of absolute to positive utilities leads readily to the boundary line between economics and the other social sciences. Economics is the science of positive utilities—the realm where no other motives are recognized except those resulting from changes in the amount of our measurable pleasures and pains. If all our actions depended upon judgments reached by reasoning from premise to conclusion, there would be no social science but economics. There would always be a summing up and comparison of the losses and gains resulting from each act, and the conduct of each individual would depend upon the outcome of this conscious calculation. Such a triumph of the reasoning faculty over human feeling has been looked upon by many as the goal of human progress. Bentham and his school assumed both the possibility and desirability of such a state of society, and believed that the gradual breaking down of customs and habits, in which their age took a prominent part, would lead to a readjustment of our habits of thought upon a purely rational basis. If this had proved true, all social science would be purely utilitarian—a mere calculus of pleasure and pain, —and at the same time economic, because all our measurable pleasures and pains are directly or indirectly due to economic causes.

A better knowledge of psychology has caused a reaction against this ideal of the older utilitarians, and has led to a fuller recognition of the ultimate relation between our feelings and our reasoning faculty. This relation must be discussed from a strictly economic standpoint. Those of our feelings which independently of a conscious calculus of pleasures and pains furnish strong motives to action, are directly associated with the absolute utilities of life. In a mere calculating utilitarianism these utilities are likely to be neglected, or at best measured only by their indirect effects in positive utilities. A multitude of measurable present pleasures will appear greater than an absolute utility, the importance of which lies in the future. To remedy this defect in the reasoning process, inseparable associations arise between each absolute utility, and a strong feeling, through which an equilibrium is restored between the motives which induce men to acquire the absolute utilities, and those due to the calculus of pleasures and pains, which relates to positive utilities alone. Or, to describe the mental process more definitely, out of each absolute utility there grows up a corresponding ideal—a mental picture—of a social state where that which is so rare as to be an absolute utility becomes so bountiful as to be a free utility enjoyed by all. Just as poverty-stricken, overworked people think of a haven of rest where the streets are paved with gold, so do those who appreciate any absolute utility think of conditions where this utility is so plentiful as to be free, forming from them an ideal of how these conditions can be realized.

It is these ideals, and not the absolute utilities themselves, which form the motive power leading us to deviate from the reasoned results of a conscious calculation of pleasures and pains. Any fact associated with an absolute utility brings up an ideal and with the ideal comes a motive for action. When strong, this feeling acts so quickly that a purely utilitarian calculation cannot be made. In this way, a psychological safeguard for the absolute utilities is created, and the dominant present motives are made to correspond more closely to the welfare of the individual than would those arising from a contemplation of the positive utilities which would result from a given action. The scope of the reasoning faculty is limited, but the adjustment of the individual to his whole environment is made more complete.

The other social sciences are dependent upon economics for the causes to which their rise is due. They may be said to treat of the absolute utilities of life and of the resulting ideals and motives for action. Particular economic conditions make certain utilities so rare that their utility becomes absolute, and then ideals, feelings, and motives are formed which are subjects of scientific investigation. Had not early economic conditions made justice and freedom so rare as to become ideals, we should have no science of law or of government, through which we endeavor to realize these ideals. We should only have certain rules of action and certain coöperative schemes, determined by the action of a calculating utilitarianism.

The line between ethics and utilitarianism is determined by the point

where the calculation of the positive utilities ends, and action is prompted by feelings and ideals due to the presence of certain utilities which are absolute. They cannot be properly valued in a calculation of positive utilities. A definite feeling is associated with each of the virtues, which is independent of the sum of positive utilities flowing from virtuous action. This feeling is, however, supported by these positive utilities, and, in respect to origin, they may be said to be the cause. The feeling that honesty is a virtue is not the same in kind and quality with the feeling that "Honesty is the best policy." The latter is merely a summing up of the positive utilities which result from an honest policy. The strength of this feeling depends upon the surplus of pleasures which the honest policy will give above what can be secured by a dishonest policy. There is thus a sum of pleasures to be secured, but as this sum is not recognized as a part of a higher complement of goods, its loss does not affect any of these higher complements out of which flow so many of the more permanent pleasures of life. The mental attitude of the consumer and the character of his feelings will fix the sum of these positive utilities, and determine how honest his policy shall be under each given set of circumstances.

But when a consumer has made honesty an ideal, or, in strictly economic terms, a part of a higher complement of goods, the direct loss of positive utilities is a minor consequence, in comparison with the loss of utility in the higher complement of which honesty is a part. Every thought or action forming part of the higher complement brings up the corresponding ideal, thus making the consumer conscious of the lack of harmony between his dishonest act and the ideal. The loss of positive utility is temporary. The loss due to an act out of harmony with an ideal is repeated whenever the ideal is recalled to mind in connection with any part of the complement of goods out of which it springs. The first loss might, therefore, be called in economic terms a fund of disutility, the second, a flow of disutility.

It will be readily seen from this statement of the differences between economics and the other social sciences, that the boundary between it and them is not constant. The number of absolute utilities varies with the progress of the race, and depends upon its mental, social, and physical environment. The formation of each new complement makes the attainment of a group of goods a requisite to the best utilization of each member of the group. The greater the complement, the more nearly absolute does the demand for each member of the complement become. The accompanying ideal becomes more manifest with each enlargement of the complement, and with it arises the psychologic motive, displacing the utilitarian calculation which determines the action of less important cases. As action becomes more vital, reasoning is displaced by feeling, which acts more promptly, and is less subject to deception.

Even in fields usually regarded as strictly economic, there are many instances where feelings are so strong that they displace the utilitarian calculation, and thus make the treatment of certain problems analogous to the

treatment of problems in the higher social sciences. Capital, for instance, is to many persons more than a possible means of increasing production, whose utility is to be measured by the definite additions it makes to the welfare of its possessor. It is also an ideal which is associated with all economic goods. Capital thus becomes a requisite of production, a something without which life would be unendurable. Feelings, therefore, arise with this ideal of capital as an absolute utility, which determine the action of capitalists in consumption more than the calculation of the positive utilities which result from the use of capital. The long conflicts with poverty which the unfortunate classes in society endure cause them to think of bread not as a given sum of positive utility, but as the staff of life, an absolute utility the loss of which means death. The demand for bread in a social revolution is not, therefore, a demand for positive utilities. The feeling that prompts this action comes from an ideal formed among the unfortunate as to what is the essence of life, and this ideal can be displaced only by changes in their social condition which will take from bread its position as an absolute utility. The right to work as an economic principle is due to an association of work with life. It is similar, in kind, to the association, in the mind of the capitalist, between capital and living. Work, as an absolute utility, creates in the mind of the workman an ideal of social justice which interferes with the decisions of a conscious, reasoning self-interest. In all these cases, and in many more which might be mentioned, the formation of economic ideals creates new feelings and new motives, which cause the actions of consumers to deviate widely from what the promptings of a purely utilitarian calculation of positive utilities demand.

Mental action is determined by feeling or reasoning. When feelings are the sole guide, the action becomes mechanical, and ceases to be an object of conscious thought. Habits and customs are formed, therefore, which in time become instincts through modifications of the brain structure. These peculiarities of brain structure delay the conscious recognition of other motives, and thus permit the instinct to control the action. When a decision is reached by reasoning, no one motive is strong enough to drive the others from consciousness. The strength of these motives is measured not by a single shock, as when the action is instinctive, but by a series of additions to each motive. Inducement after inducement is added, until there is a recognition of the sum of pleasure which each action offers, and of the net surplus which some one action can furnish. The decision, therefore, depends upon a conscious analysis of the result of each act, and upon the measurement of its effects. When this is done, the action lies wholly in the field of utilitarianism, and the controlling force is self-interest. Psychology and utilitarianism cover between them the whole field of subjective science. The premises of the higher sciences must be either psychological or utilitarian. The peculiar phenomena of these two sciences are not due to any new principles, but merely to the blending of the effects of purely psychical forces with those of the conscious measurements of the

relative strength of commensurate desires. Politics, ethics, laws, etc., depend as sciences upon the relation of feelings and ideas, which have become psychological, to the conscious reasoning about positive utilities, which creates the field of pure utilitarianism.

In one respect, these feelings with which the higher social sciences deal are a return to the standards of the animal nature, because reasoning is displaced by feeling. Animals have a psychology which furnishes the motives for action. But they have no economics. They lack the power consciously to measure and compare positive utilities. Men, however, have both psychical and utilitarian motives. The one determines the quick, regular, important decisions, and the other the less regular acts, or those where there is a conscious endeavor to increase the adjustment between the individual and the environment. The one side is static, and holds the ground once gained through the strong feelings which are created by regular action; the other is dynamic, breaking down old customs and habits, and readjusting them on a more rational basis. Reformers, therefore, always desire to break the crust formed by the static action of the feelings which lie at the basis of the higher social sciences. The cry of "Back to nature" has never meant a real return to an animal state. It really means to get away from actions psychically determined, and back to conscious reasoning; and this would mean a return to pure utilitarianism. The primitive state of man is not, as Hobbes supposed, a state of war, but a state of utilitarianism; that is, a freedom from all bonds but those created by the positive utilities which the individual can consciously measure and compare.

The phenomena with which economics deals may in many respects be compared to those of geology. In the centre there is a molten or semi-fluid mass, on the outside a crust binding it in. Now and then the molten mass breaks through this crust. The molten mass is governed by the laws of utilitarianism. The parts are so easily readjusted that their position and relation are determined by a few simple laws. The crust, however, is firm and static. It rests on the molten mass of utilitarianism, and is occasionally remodelled by its upheavals. The phenomena of this crust of habits, feelings, and customs, created by social intercourse, make a field for the higher social sciences. They limit the action of pure utilitarianism, but in turn are often remodelled by changes in the crust due to utilitarian forces.

Reformers always appeal to utilitarianism, because they think that the crust, if remelted and allowed to reform under present influences, would take some shape more in harmony with the needs of the present time. If the old continent were sunk with all its imperfections due to past conditions, and a new continent created in a new location, with another climate and other natural conditions, the simple play of natural forces would create a new world free from present evils. The action of pure utilitarianism upon a social world, made of new and pliant material, would create an ideal state. Reformers are thus utilitarians by instinct, and trust wholly to its battering rams to break down the walls which support present institutions

and their attendant evils. They are willing to remove the crust of the feelings and habits due to the past action of social forces, and trust themselves upon the surface of the molten mass of the interior, with the reasoned results of a calculus of pleasures and pains as their only guide and support.

When it is once recognized that utilitarianism is not ethics, but a part of economics, dealing with the problems of social progress, ethics is limited to a narrower but more clearly defined field, and new boundaries must be set between it and the enlarged science of economics. There is no appeal to ethics so long as strictly utilitarian grounds for action are presented. Any law must be enforced. The only question is, What is the motive which makes the conduct of men conform to the law? It may be a reasoned calculation of pleasures and pains, and then the motive power is self-interest. But the consideration of this problem lies within the field of economics, even though the resulting action leads to social progress, and thus indirectly to moral improvement. We get into ethics, not by insisting on a ground for enforcement, but by insisting upon a particular ground—by appeals to those instinctive feelings we call a conscience and not to self-interest.

The older economists did not discuss the obligation to follow self-interest, because they took it for granted. They assumed that each individual was fully aware of what self-interest demanded, and that he would be impelled to follow this self-interest, if other motives were absent. It is right, as Mill does, to think of mankind as being "impelled" to a given course of action, if men are occupied solely in acquiring and consuming wealth, but it is wrong to overlook the fact that the same motive that leads men to increase material wealth would also lead them to modify their consumption so that the marginal utility of that wealth will be greater. The static man is impelled to increase his material wealth as the only means of increasing his welfare, while the dynamic consumer finds a readier means of increasing his welfare in raising the margin of his consumption by rearranging his goods in new complements. The impelling motive is the same in both cases, and, if economics treats of one class of problems, it treats also of the other. No degree of abstraction can cut out the one class of problems, and leave to the other the sole field of economic investigation.

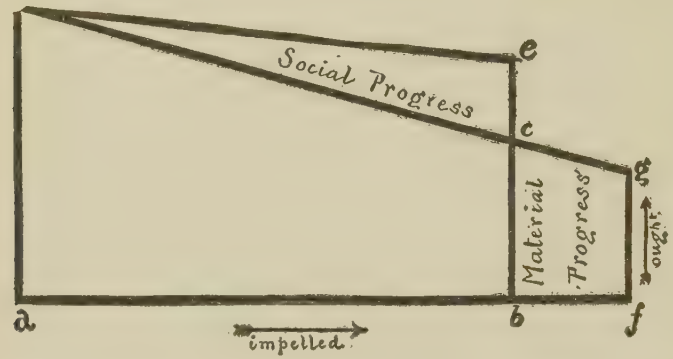
It is merely the force of habit and the result of peculiarities of language, to talk of men as being "impelled" to increase wealth, while it is said they "ought" to aid social progress. The "ought" in the latter case implies the same motive power that "impels" men to action in the former. Custom, however, compels us to use two words to express the same idea. The increase of material wealth is associated with the supply of the coarser material wants. So we feel justified in saying that men are impelled to eat, to drink, to wear clothing, and to seek shelter. Social progress means the supply of these absolute utilities, but in ways which will increase the positive utility of living. But the force which impels men to these finer forms of consumption does not seem so urgent as that which impels men to seek the absolute utilities of life. Our language shows this distinction plainly. We say that men are impelled to eat, but that they ought to wash the

dishes; that they must drink, but they ought to use pure water; that they must have houses, but that they ought to make them pleasant and healthy; and that they must have clothes, but that they ought to keep them clean. We use the word "must," or say men are "impelled" to action, when the results of the action are so obvious that even the most ignorant and stupid cannot mistake them. We use "ought," however, in the more complicated cases where there is a liability to err, or when the psychical tendencies of men are so different that the action in each case depends upon individual peculiarities. The user of the word usually assumes that the person addressed has a lower grade of intelligence, and hence, in his conscious calculations he is choosing a less instead of a greater pleasure. "If you had your best interests in mind,"—"if you had calculated more correctly,"—or "if your conduct were more consistent,—you would do this." The "ought" in this sense is merely a contraction for a long conditioning clause, which appeals only to the conscious reasoning spirit in men. This failure to calculate rightly is a defect, not in morals, but in intelligence, and the remedy lies in an intellectual education, and not in a moral awakening.

The mild or economic "ought" implies merely consistency. The strong "ought" of morals, however, implies obligation. It presents a picture, an ideal, not a comparative scale of positive utilities. It has its force because strong feelings are aroused by the lack of conformity between the act in question and the ideal, and not because six units of utility are less than eight units. The mild "ought" has a force proportional to the net surplus of the act. The strong "ought," however, has the same force, whenever clearly perceived. It is a psychical reaction and not a conscious comparison. Its force depends upon the psychical causes bringing up the ideal, and not on the net results of a comparison with other possible acts. From this analysis of the meaning of the word "ought" it will be seen that the use of the word does not mark the boundary between economics and ethics. The strong "ought" alone appeals to motives within the true realm of ethics. The mild "ought," however, indicates an appeal to the utilitarian calculus of pleasures and pains which lie at the basis of economic reasoning. Its strength depends upon the net surplus of positive utility which the action affords. The impelling motive is the same as that which leads to the production of material wealth. The only difference is that the one measures in subjective units what the other measures in objective units. The first, therefore, measures the dynamic forces of social progress, while the second measures the static forces of material progress. The relation of these two parts of economic theory may be illustrated by the diagram [on p. 192]. Let the quantity of goods produced by a given society be measured by the line *a b*, and the utility of each part by the distance between *a b* and *d c*. The welfare of this society, may be increased in two ways. The quantity of goods may be increased by producing *b f* more goods, or the utility of what has been produced may be increased by social progress, which will raise the margin of consumption from *b c* to *b e*. In the one case, the increase of utility would be the area *b f g c* and, in the other, the area *d e c*.

The motive in each case would be of the same kind, and if the areas were equal, the strength of the motives would be the same. The word "ought," however, is associated with endeavors to lengthen the line *b c*, while endeavors to lengthen *a b* are thought of in economic terms, and men are said to be "impelled" to such actions. Self interest, the impelling motive, is supposed to act horizontally, and to increase the line *a b*, while the "ought" acts vertically and lengthens the line *b c*. An artificial distinction is made in language and in the popular thought for which there is no real basis, and the realm of economics is divided into two parts.

FIG. IX



It has been necessary to discuss the concrete circumstances which have shaped economics and utilitarianism, and kept them separate, in order to understand their historical relations and present limitation. The field of the two sciences is the same. The points where the field was entered by early investigators, for the purpose of their investigations, were different. Utilitarianism was abstract, and treated of pleasures and pains as purely subjective phenomena. Economics was concrete and treated of utilities as material wealth, conditioned by the laws of the objective world. The one took the abstract laws of mental action, and sought to determine the conduct of individuals in concrete cases. The other began with the concrete phenomena of industrial life, and sought in the objective environment the motives which shape the conduct of industrial communities. The first naturally became the hope of reformers, who believed that the static crust of social habits was the main obstacle to social progress. The second became the support of the conservative classes, who saw in the concrete conditions of the objective world an insurmountable obstacle to distasteful reforms. What might be true in the abstract, could not, they claimed, be realized in the world as now constituted. It is, therefore, easy to see why utilitarianism should assume an ethical form and contain a theory of social progress, while economists, by emphasizing objective conditions, and over-

looking all subjective motives other than the desire for material wealth, should make their science static, and formulate its laws after the model of the physical sciences.

But the generalization of the laws which control men in the pursuit of wealth could not but get the science of economics into that abstract form from which utilitarianism started out, nor could the study of social reform keep away from the concrete conditions of the objective world which form the great obstacles to social reform. Thus, the one science by becoming concrete, and the other by becoming abstract, gradually lost the differences which in the beginning kept them apart, until now there is no reason why they should not be merged into one science and studied by the same method.

Economics, in its most general form, is the science of utilities studied under the concrete relations that are manifest in the social world. No matter how abstract and subjective a group of pleasures may seem to be, some of its elements are so related to the concrete economic world that the utility of the group can be measured through the presence or absence of the economic elements. In this way, the laws of positive utilities are discovered under concrete conditions, and formulated as abstract principles. Such a group of purely abstract principles, however, would not be that concrete science to which the name political economy has been given. In the concrete sense, however, there is not one economy but many economies, each depending upon the addition of particular premises to the abstract principles furnished by the science of utilities. We have been so accustomed to take the particular economy of the English people as a standard, that it has been too often assumed that it gave us the nucleus of the abstract science. Without belittling the importance of this economy, it is at least possible to show that many other economies actually exist, and some of them may in the near future have a greater relative importance than the economy of the English people. The concrete premises which create particular economies may be physical or social, and may refer to static or dynamic states of society. Free competition, private property, individualism, the tendency towards monopolies and State socialism are instances of social premises. Differences in soils, diminishing returns in agriculture, and international trade are examples of physical premises. A third variety of economy is derived from a comparative study of different stages of civilization. We call these *national* economies, where it is assumed that the nation under consideration is in a particular stage of progress, and that certain premises peculiar to it must be made the starting point of investigation.

It is thus possible to have a great variety of concrete premises to temper the abstract science of utilities which lies at the basis of economic discussion. Some alloy from the objective world must be mingled with purely subjective phenomena of utilitarianism to make the latter concrete and definite. The air of reality is lost as the last two elements are separated. The science of economics must, therefore, have a scope large enough to treat of all the various combinations of phenomena that the social world

presents. The subjective and the objective, the static and the dynamic, are parts of one whole, which cannot be broken up into different sciences without obscuring the great forces that manifest themselves in these different forms, and also creating false abstractions that will vitiate any reasoning depending upon them.

A NEW STATEMENT OF THE LAW OF POPULATION[1]

NO doctrine or class of doctrines in political economy has been criticised more severely or opposed more vigorously than what passes current as the law of population. This law is so intimately associated with the name of Malthus that it has become synonymous in the minds of most people with the term Malthusianism. An examination of the various current statements of the law as developed by Malthus in the various editions of his *Essay on Population,* amply justifies many of the criticisms made upon it. At the same time it reveals a singular lack of agreement on the part of so-called Malthusians as to the real basis of the law and as to the proof by which it is to be substantiated. Instead of a single law of population, determined by certain invariable conditions which are universally recognized, it is found that the statement of the law has repeatedly shifted its ground so as to give practically several laws of population; and at the same time the character of the proof advanced has changed to keep pace with the new formulations of the law. So unsatisfactory have many of the stock arguments proved, that nothing short of restatement, in modified form, of the conditions under which the law is assumed to operate will serve to bring it into harmony with the present tendencies of economic thought. There are several distinct doctrines which lie confused in the discussion of the theory of population, each of which must have its consequences logically developed before the difficulties which now attend the discussion of the law can be cleared away.

The first proof advanced by Malthus depended upon the opposition between population and the food supply. On the one hand, the tendencies to populate being regarded as fixed and definite, there is a rapid increase in the numbers of the population which brings the members of the human race into conflict with one another in their struggle for subsistence. On the other hand the food supply is regarded as limited. Under the influence of the tendency to over-populate, the race is constantly pressing upon the limits set by the production of food, and is always in imminent danger of being reduced to starvation. Such a formulation of the law of population has the great merit of being clear and easily comprehended. Unfortunately the proof of the law so formulated is by no means convincing or even logical; and it is the weak character of the evidence adduced in support of the law that has strengthened its opponents in their opposition.

In the first edition of Malthus's work we see clearly the starting point of this discussion; it is plain that the law was formulated as a result of medita-

[1] Reprinted from *The Political Science Quarterly,* Vol. X, pp. 44–61, March, 1895.

tion upon the opposition between population and food supply. Godwin, in his *Political Justice,* had advanced the same doctrine found in Condorcet's *Sketch of the Progress of the Human Mind,* in which is predicted the removal of all social and political evils, and the establishment of peace, virtue and happiness over the whole earth. Godwin attributed nearly all the vices and misery with which society is afflicted to bad government and bad laws. Reform these, he said; do away with all the institutions that minister to oppression, both political and social, and society will naturally mould itself to an ideal state, where the spirit of benevolence, guided by justice, will distribute the bounteous fruits of the earth among all persons according to their several needs. It was such an ideal as this that Malthus wished to combat, and he sought to do it by calling attention to the opposition between the food supply and population, the desire for food and the desire for marriage being treated as two coördinate principles. His method of proof was as follows. In an ideal state the food supply of the whole world would soon be brought into requisition and there would be no possible chance for any further increase; but the condition of the people would cause population to increase more rapidly than it does now, and in this way there would soon be a greater population than the food supply could sustain. Consequently he predicted that at the end of a short period, perhaps not more than fifty years, the ideal society would be destroyed through over-population. It should be noticed that this argument has nothing to do with the actual condition of society, past or present. It merely relates to an ideal society; and it must be confessed that this argument against Godwin is complete.

If we substitute for the scheme of Godwin the ideal of society more familiar to us in the present day, the vital point of controversy can be more clearly seen. Bellamy in his *Looking Backward* has presented to us a scheme of an ideal society in which the present evils, political as well as economic, are avoided, and the highest form of social organization possible for us with our physical limitations is realized. While this scheme differs in many respects from that of Godwin, the points which the two have in common are numerous, and the arguments of Malthus are as pertinent to the one as to the other. Bellamy's scheme would also bring into requisition all the means of subsistence, and the argument of Malthus would have the same force here as against Godwin. In other words, Bellamy provides no means by which to care for any other future increase in population after his ideal society has once established itself and all resources are fully utilized.

However cogent the arguments of Malthus may be against such schemes, it is unfortunate that the problem of the physical powers of the earth became confused with the problem of population. The question is not population *versus* the possible means of subsistence, but population *versus* the power in a given society to obtain subsistence. In other words the opposition is between population and its productive power. Useless and confusing also is the discussion of the natural rate of increase and the means by which this natural rate can be measured. The strength of the sexual passion is not a neces-

sary premise in the discussion of the problem, though Malthus thought differently. Malthus was equally unfortunate when he endeavored to demonstrate the natural inequality between the productive powers of nature and of the human species, thus apparently making Providence responsible for the evils resulting from over-population. It is only too evident that when Malthus wrote his first essay he was influenced more by political than by economic considerations, or he would not have contended for the natural inequality of men. Godwin sought to make society responsible for all the evils from which we suffer. This is doubtless an exaggerated view; yet the doctrine of Malthus that all our misery results from natural causes is equally far from the truth.

Before the publication of the second edition of his *Essay,* Malthus had subjected it to a careful revision and had added to it the results of foreign travel and wider reading. The change in the title itself indicated the changed character of the book and the new centre about which the discussion was now to revolve. The first edition was *An Essay on the Principle of Population as it Affects the Future Improvement of Society,* thus relating directly to the ideal society which Godwin had in mind; the second edition is *An Essay on the Principle of Population, or a View of its Past and Present Effects on Human Happiness.* The future is no longer prominent; the past and present now come into the foreground. Malthus endeavors to show how in past ages and at the present time the misery and suffering in the world come, not from social and political oppression, but from the tendency to over-populate. The second argument introduced by Malthus depends upon the relative increase of population and of the food supply. Neither population nor the food supply is at its ultimate limit, but the ratio of increase is greater in the one case than in the other: while the food supply is increased by a given increment, population is increased to a still greater degree. Under such conditions, even though the whole food supply of the world is not utilized, there can be no other result than misery and suffering. The opposition now is between the physical qualities of the soil and the physiological qualities of men. The physiological qualities of men lead to a geometrical ratio of increase in population, while the physical qualities of the soil do not allow more than an arithmetical ratio of increase in the supply of food. The force of this argument is to emphasize Malthus's thesis that present misery results from the tendency to over-populate. Population is constantly pressing against the means of subsistence, and no relief is possible which does not operate on and through the minds and habits of the people.

There is little justification for John Stuart Mill's attempt, more charitable than wise, to excuse in Malthus what he considered "an unlucky attempt to give numerical precision to things which do not admit of it,"—an attempt which was "wholly superfluous to his argument." As a matter of fact this particular argument was the only one that Malthus could at this time bring forward as a basis for his theory. With these definite ratios he was able to establish with respect to the present and past of human society con-

clusions identical with those concerning the future which he had arrived at by his first argument. Mill probably forgot that economic thought in the time of Malthus had not yet arrived at the formulation of the law of diminishing returns, which was later to modify in more ways than one the current economic doctrines.

It is at this stage of the discussion that a new argument was introduced which gave to the law a broader basis. This third argument depends upon the law of diminishing returns and is a result of the agitation concerning the ground leases of England, becoming prominent about 1815, when Malthus, West and Ricardo began to develop almost simultaneously the theory of rent. When this agitation had brought about its inevitable consequences, there was seen to be an opportunity for a stronger statement of the law of population than had been possible when the whole argument depended upon the difference between arithmetical and geometrical ratios. This new statement is put more clearly by Mill than by any other writer. The food supply has not definite limits, as would be the case in an ideal society; it is rather to be thought of as a quantity gradually increasing, but against a steadily increasing pressure. The obstacles to the increase in the food supply are not definite and fixed, but are likened by Mill to an elastic band, which stretches, but with increased difficulty, to meet the demands of the increasing population.

Like its predecessors, this last argument is conclusive only under given conditions. While the concept of society was merely a static one, a clear case could be made by the economists in favor of the law of population as formulated by Mill. But this argument fails if society is dynamic and the average return which the population obtains for its industry is increasing. The opponents of the theory of population have been able to turn the point of Mill's arguments by showing that the average condition of humanity at present is at least no worse, and in all probability is much better, than in the past. It is claimed that we are passing not from good to bad opportunities for labor, but from poorer to better. Under such conditions the law of diminishing returns would not be operative, and consequently the conclusions which Mill draws as to the evil effects of the increase in population upon the past and present conditions of society would not be true. In a dynamic state of society there would be no pressure of population upon the limits of the food supply for an indefinite period. So long as there is any uncertainty as to whether society is in a static or a dynamic condition, Mill's law of population is open to attack, and it is not difficult to show the weakness of his whole argument concerning the effects of an increasing population.

There is a fourth statement of the law of population which is even more extreme than the three we have thus far considered. This is traceable to the discussion relating to the wage-fund. According to this theory the formula "population depends upon food" is narrowed into "population depends upon capital." Industry is limited by capital and not by natural forces. Man and nature cannot create prosperity without the aid of the

capitalist as an intermediary. Food is no longer looked upon as the gift of nature to man, but as the gift of one man to another. In order to procure food there must be not only nature to produce it, but man to save it. The growth of population is limited by the rate of increase of capital, and not by the natural rate of increase of food. The powers of nature to increase food cannot be fully exercised, because of the lack of the "saving" quality in men. As the mass of the laborers lack this quality, their rate of increase depends not on themselves or on nature, but on the quantity of food which an outside class is willing to refrain from consuming. It is this concept of the law of population that has estranged the laboring classes from political economy and has given to recent socialistic literature a basis for its reaction from the old political economy.

Each of the four statements of the law of population which we have thus far examined can easily be shown to be defective. If political economy is to continue to make any use of the law of population, it is clear that this law must be re-stated in a manner more in harmony with the present tendencies of economic thought. The law must be given a new basis upon facts which are not open to dispute and which do not bring up in the mind of the reader the old bitter controversy aroused by the writings of Malthus.

The opposition to be harmonized is not between population and the means of subsistence, but rather between population and productive power. Productive power depends upon the intelligence of man and the efficiency of the social organization; and as this productive power increases, the food supply increases. Productive power thus determines the quantity of food that a nation can obtain, and this quantity of food stands in no necessary and unalterable relation to the total possible food supply which could be obtained by the greatest utilization of all natural resources.

Productive power is really the connecting link, the equalizing force, between population and the food supply; it checks the former and increases the latter. As civilization is the principle antagonistic to the law of diminishing returns, so productive power is the principle antagonistic to the law of increasing population. With the growth of those qualities in men which lead to an increase in the productive power, there is a diminution of the force of those passions which tend to increase population, thus gradually bringing about a harmony between population and food supply. In the primitive man, the cruder appetites and passions are the strongest motives to action. With the development of a higher type of man other pleasures become stronger and the natural impulses, which come from the primitive appetites and passions, are gradually subdued. A new society thus becomes possible, in which individuals act in a way that tends to secure a closer connection between population and productive power.

The value of food to a poor man, after his own wants have been satisfied up to a certain point, decreases so rapidly that the value of those increments of food necessary to the proper nourishment of his family is less to him than the value of other elements in his own consumption. He neglects his family to supply these personal wants. If the father's produc-

tive power is small, in order to satisfy his urgent wants he places his family in such conditions that they necessarily suffer, and as a result population is kept down. On account of a lack of productive power through which a larger income might be obtained, the father is often compelled to select a house in an unhealthy region, to provide his children with insufficient clothing and to deprive them of many of those conditions which go to make up a healthy life. Give such a man a greater productive power, and he will place his family under better conditions, where the effect of bad air, impure water and other detrimental causes will be less harmful than before, and as a result the number of surviving children in his family will be greater.

An increase in productive power does not increase the number of children born into a family, but it does increase the number of children that can survive in a family and reach maturity; and it is only through some change in the productive power which enables the members of a community to place themselves in a different and better environment, that an increase in population is rendered possible. In a primitive society population does not increase, or at least increases but slowly, and this fact is due to the choice of surroundings which men make. The bad physical conditions surrounding a family are the results of its limited productive power. Lack of productive power forces the family to put itself under these conditions in order to satisfy its more pressing wants. The lack of productive power, therefore, and not deficiency in the food supply, is the cause of misery and vice. This may be illustrated by the case of early Philadelphia. In the first quarter of the present century population was more congested in particular localities than it now is, not because there was not ample food in and about the city, but because men of limited productive capacities placed themselves under such conditions that misery and vice were the necessary consequences. With the gradual increase in productive power in the city during this century there has been a rapid improvement in the condition of the average citizen, and as a result the greater population suffers less proportionately than did the smaller population at an earlier period, and misery and vice are reduced.

With a low productive power selfishness and the desire to satisfy immediate wants force the family almost necessarily into misery and vice. Even though the food were produced chemically at its present cost, so that the results of the law of diminishing returns could be avoided, the same causes would lead to misery and vice and check the increase in population. With a given productive power the people in a given region will act in a way that will lead to a certain amount of misery and crime. It may be true that only a few miles distant there are other conditions, permitting an increase in population which has no detrimental social effects, yet along with the choices which people are making with reference to their productive power, similar choices are being made in consumption, and the same vice and misery will prevail.

The new statement of the law depends, then, upon the opposition between

different elements in man's nature, and not upon the opposition between man and external nature; and also upon the fact that an increase in productive power is due to subjective changes in man and not to objective changes in man's environment. The nature of man is gradually changing and new pleasures and powers are being developed, while accompanying these changes there is a constant increase in the productive power of individuals. With this influx of new qualities there is an efflux of the old, and as a consequence there is possible a constant increase in population, accompanied by a constant diminution in the rate of increase. From this we arrive at the somewhat paradoxical conclusion that the tendency to over-populate leads, not to over-population, but to under-population. The truth of this paradox may be illustrated by means of the following table:

	I Industrial Qualities.	II Children Born in each Family.	III Relative Quantity of Food Produced	IV Number of Children Surviving in each Family.	V Misery Caused by Over-population.	VI Total Population.
A	1	8	3	$2\frac{1}{8}$	x	3 M.
B	2	7	5	$2\frac{1}{4}$	$\frac{2x}{3}$	5 M.
C	3	6	9	$2\frac{1}{3}$	$\frac{x}{2}$	9 M.
D	4	5	15	$2\frac{1}{2}$	$\frac{x}{3}$	15 M.

Let A, B, C and D represent four successive stages in the development of a society. In each stage there is an increase in the industrial qualities of the individuals in the society and a corresponding increase in their productive power. Stage A represents the primitive condition of this society, where its members have only one industrial quality, while later, in stage B they have two, in C three, and finally in D they have four industrial qualities. In stage A, where the industrial qualities are the most limited, the tendency to increase population will be greatest. The pleasures of the people will be few and inharmonious, while their appetites and passions will be little restrained by social and economic forces. In this stage there will be born (say) eight children to a family, in B seven children, in C six children and in D only five children. Every stage in the advancing civilization, accompanied by an increase in the number of industrial qualities, will open up new sources of pleasure and create new social forces through which the strength of the primitive appetites and passions will be reduced. A new equilibrium will thus be formed between the primitive and the social elements in man's nature, and there will be a decrease in the tendency to increase population.

With each increase in the number of industrial qualities the power of the society to produce food will be augmented. We will assume that the rela-

tive increase of the food supply is indicated in the third column. On the same area three families can be supported in stage A, five families in stage B, nine families in stage C, and fifteen families in stage D. There will therefore be a fixed limit to the increase of population in each of these stages of progress corresponding to the productive power in that stage. When this fixed limit is reached, misery, disease, famine or other forms of social distress must carry off the redundant individuals and keep the population stationary in numbers, until some new increase of productive power extends the possible limit of population.

The fourth column indicates the number of each family that survive until maturity and thus become the parents of a new generation. If the amount of the food supply is stationary, only two children can survive in the average family. The more dynamic the society and the more rapid the increase in the number of its industrial qualities, the more quickly can it advance towards the ideal state and the larger is the number that can survive in each family. In stage A, although eight children are born in each family, yet the society is so static that but two and one-fifth children on an average can survive. In stage B, because of greater intelligence and of a more rapid increase in the food supply, a larger number can survive in each family, say two and one-fourth children; in stage C, under still better conditions, perhaps two and one-third children; and finally in stage D the number of surviving children may reach two and one-half to the family. In short the actual increase in numbers will be greater in each succeeding stage, although the number of children born to a family will be less.

The pressure of over-population is measured by the difference between the number born to a family and the number surviving. In stage A, where eight children are born to a family and but two and one-fifths children can survive, the pressure of population against its limits must be great enough to sweep off five and four-fifths children in each family, while in stage D the pressure is so reduced that a half of the children can survive. The standard of life can therefore be increased in each succeeding stage and the distribution of wealth will be more equitable.

The fifth column seeks to represent the misery which the tendency to over-populate creates in each stage of progress. If the misery and suffering of the average person due to this cause in stage A is represented by x, this average misery will be less in stage B, say two-thirds of x. In stage C it will be still less, say one-half of x, while in stage D it may fall to one-third of x. The detrimental influences of over-population are gradually reduced by social progress, and if there is great distress in an advanced society, it must be due largely to other causes.

The sixth column shows what will be the total population that can be maintained by the productive power during each of these stages of social progress. If stage A, with its limited productive power, can support three million people in the region occupied by the society, in stage B five million can be supported; while in stage C the number can be increased to nine million, and in stage D to fifteen million. The social improvement in each

succeeding stage is due on the one hand to the more perfect industrial organization which a larger population permits, and on the other to the reduced pressure of population.

Taking up the theoretical conditions which entered into Malthus's first discussion with Godwin, we might suppose that an ideal society having its industrial qualities fully developed could support sixty million people in a given region. The actual population, however, would stand in no necessary relation to this ideal number, and no calculation based upon the population which this ideal society could support would have any bearing on the actual population in any given stage of progress, or enable one to determine the limit to the amount of population which a society with a given productive power could support. Knowledge of such ideal conditions would be of no aid in determining the welfare of the society at any given stage, or the social distress which the tendency to over-populate creates.

No valid proof of the law of population can be based upon the relation between the primitive tendency of a society to over-populate and the purely physical conditions of the environment; nor are those arguments any better which seek to determine the pressure of population by the relation between the actual numbers in a given society and the ideal productivity of the soil when cultivated by an ideal society. The only sound arguments are those which connect the productive power of each society with its present tendency to increase in numbers. Through this comparison it will be seen that the pressure of population is greatest in the earlier stages of progress and that it is gradually reduced as society progresses. So long as a society continues dynamic, the less the tendency to increase population the more rapid can the growth of population be, and the greater the total population which a given region can support. Over-population is therefore relative and has its cause in social, not in physical conditions.

Viewing the problem of population from its social side, the checks to the increase of population must be arranged on some other plan than that proposed by Malthus. He recognized only the conscious restraints which act through individuals, and did not bring out the unconscious restraints which are operating all the while through social agencies. We see the vice and misery around us and feel within us the restraining influence of moral motives. They are indications that the natural inclinations of the individual are out of harmony with his environment. The vice and misery existing show that the will and reasoning powers of the average man are relatively weak in their struggle against the passions and appetites which he inherits from his primitive forefathers, while the need of moral restraints, even when these are most efficient, shows that the surplus of pleasure over pain is still on the wrong side. Moral restraints in social affairs would not be needed if the pleasures which the environment yields to right actions exceeded the pleasures to be derived from actions out of harmony with the economic conditions of a given period.

The function of moral restraint is to give increased vitality to social ideals and thus to reduce the surplus of actions prompted by lower motives.

It is at present strong enough to bring the actions of the higher types of men into harmony with these ideals; but the continued presence of misery, vice and other positive checks to population shows how incapable it is, when unsupported by the proper economic conditions, of reducing the surplus of pleasure derived by primitive men from wrong conduct below that given by right actions which are more in accord with the social environment.

Fortunately our social progress does not depend upon these conscious checks to population. Even when we have no thought of limiting population, unconscious checks are developing in every dynamic society which in a natural way bring the actions of individuals into harmony with the welfare of society. Of these unconscious checks the economic causes raising the standard of life are most effective. For as the number of pleasures forming a part of this standard increases, the inclination to indulge in any one of them decreases. New complements of goods are also formed in a dynamic society with every increase of productive power and with every reduction of the appetites. These causes are aided by changes in our imputation of utility, by which we attribute less of the joint pleasure derived from a complement of goods to the older and cruder elements of the complement, and more to the newer elements. This, too, prevents disagreeable associations and increases those of an agreeable nature. The added pleasure which these new adjustments give to actions in harmony with the social environment makes it more natural and easy for individuals to do what is right, and thus lessens the need of conscious checks to population, whether in the form of vice and misery or of moral restraint. The causes which increase the productive power of society also increase unconscious economic checks to population. Productive power depends mainly upon subjective conditions and every increase therein is the result of new mental powers, which modify the nature of man through the conflict between them and the primitive passions and appetites. Prudence and self-restraint are developed by the same conditions that increase the food supply. Productive power is therefore the equalizing force between population and the food supply. Whatever increases the latter must act as an unconscious check to the former.

The other powerful checks to population are sociological and physiological. These act unconsciously and with increasing force in each succeeding stage of a progressive society. Among the sociological checks, I include all those causes in society which keep men from feeling the force of their passions and appetites. Society throws around its members such restraints that they rarely become fully conscious of the strength of the passions within them; and only as they come under peculiar conditions where the normal restraints of society are not operative are they placed in an environment where they feel the full force which these passions can exert. In a progressive society the associations that arouse these passions decrease in number and disagreeable associations are more easily awakened which reduce their power and limit their activity.

The growth of these sociological checks is retarded by the freedom pos-

sessed by persons of a low moral tone to parade their vicious tendencies in public places and to corrupt public morals by creating improper associations. We try to guard virtue by putting it within walls, when the proper course would be to exclude from society the vicious element and enclose it within bounds, so that the innocent can enjoy public places without contaminating influences. The current of our thoughts would be purer if society became more homogeneous through the exclusion of the rougher element now at large. If society frees itself from the influence of these persons, it will be possible to root out many old habits and associations through which the passions are aroused. New habits and instincts would prove safeguards against the bursts of passion which improper associations produce. In our social life we might become unconscious of our passions through the lack of associations to arouse them.

The artificial restraints separating men and women have much to do with the corrupt thoughts aroused by the presence of the opposite sex. Where convent life is an ideal for young women, the associations created by the presence of women relate to unbridled indulgence. Under these conditions a feeling of honor may protect a select few within given social circles, but isolated, unprotected women are thought of as impure or as legitimate prey. Where, however, constant contact between the sexes is possible, a multitude of pleasant acts and events form the prominent features of social life and force into the background the morbid thoughts of isolated persons. Individually these new pleasures may not be so intense, but the form an harmonious complement of far greater power than the cruder pleasures they displace. A feeling of honor restrains men even in the presence of unprotected women, and the thought of taking undue liberties becomes repugnant to the finer feelings which the new relations create. These social feelings and pleasures greatly lessen the need of conscious checks to population and tend to create an equilibrium between it and the food supply.

The physiological checks are due to those physiological changes in men which reduce the strength of the primitive appetites and passions. Carey and Herbert Spencer have fully discussed the character of these changes and each has developed a theory to explain their origin. The mere fact, however, that there are such reductions of the passions and appetites is sufficient in this connection.

There are, then, three classes of unconscious checks which supplement those mentioned by Malthus. With each succeeding step in social progress their effects accumulate and make it much more easy and natural for the members of a higher civilization to do those acts which harmonize with the conditions of progress. First, the economic checks strengthen those mental qualities which aid production, and favor changes in consumption which add to the pleasure of those forms of consumption that increase the welfare of society. Then, through the action of society, sociological checks are thrown around the members of a progressive society which make them less conscious of the passions within them. And finally, the physiological

checks begin to operate through which the passions themselves are reduced and lose the power that they once had in determining the choices of individuals. In these ways, through the growth of economic, sociological and physiological checks to population, society is gradually getting itself into a better condition, where there is a greater harmony between the different sides of human nature. The opposition between the productive power of society and its rate of increase is lessened, while vice and misery cease to be a necessary consequence of social progress.

From the foregoing it can be seen that Malthusianism is not a term with a definite meaning. Under this head several important social doctrines have been discussed. The lines separating them from one another have been but dimly seen, and much confusion has resulted because the contending parties have not been fully conscious of what they desired to defend or to refute. The original dispute lay in the domain of theoretical politics about the possibility of an ideal state. The second was a practical contest relating to the causes of misery and vice. The first contest was between Malthus and the political reformers; the second between him and the moral and social reformers of his time. These moral reformers had no interest in an ideal society. Being religious in tone, they looked forward to a religious millennium in heaven and not to an ideal political society on earth. They were, however, firm believers in the perfection and harmony of natural law. They could not, therefore, accept a doctrine which implied an opposition between the natural tendencies of man and those of external nature, and made vice and misery the result of natural instead of moral causes.

In addition to these doctrines about human ideals, the Malthusian controversy brought to light two very important doctrines about the benefits and evils of the tendency of population to increase. At first the discussion centered on the question of whether or not the tendency to over-populate was an evil while so much of the earth was unoccupied; but finally the question arose of whether or not the tendency to over-populate leads to social progress by favoring the survival of the fittest. By the time this final proposition was fairly before the public the basis of the discussion was shifted from economic to biologic grounds. Malthusianism became Darwinism, and the economists were freed from any need of discussing the law of population as a special problem of their own science.

THE PRESENT PROBLEMS IN THE ECONOMIC INTERPRETATION OF HISTORY[1]

TO the man of theory and often to the man of practice the study of history seems a useless occupation. Both have an interest in the present and demand solutions for present problems. Has history anything to offer these men and can its methods be applied to the investigation of present conditions? At first sight the theorist gains little from its perusal. He finds the attention of historians limited to events of little present importance; wars occupy more space than the avocations of peace and personal affairs are discussed to the neglect of social tendencies and principles.

If a reader overlooks the prolix statements of non-essentials to which some historians are prone and seeks principles to guide present action, what does he find but the familiar assertion, "History repeats itself"? Driven back from history, the searcher for present guidance once more resorts to theory in the hope that some light may be struck that will show the road he is blindly seeking. But all in vain.

Is there no link between these two disconnected methods of research? Must the past be interpreted by a method that yields no valuable results and the present by a method that discards all reference to the past?

This opposition and these defects continued for a long time before any remedy was suggested. Historians sneered at the theorist and the economist had an openly expressed contempt for those who did not use his methods. It is only of late that a new method of research has arisen, giving to history a wider meaning and offering to the economist a test for his theories.

Progress in this direction has, however, been slow. The historical appetite for facts is in a measure satisfied by the study of the economic conditions of earlier times. It acted as a limitation on theorizing to know that the conditions economists emphasized as parts of a perpetual economy were of recent origin and have application to but a small section of humanity. The doctrines of free competition, personal liberty, free trade, individual bargaining, and like tenets of the current economic philosophy thus lost their position of supremacy and sunk into the company of the minor doctrines that are plainly limited by time and space.

The resulting changes in mental attitude are in a large measure due to the efforts of the historical economists who taught the limitations to which

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all economic doctrines are subjected. Yet in spite of a breadth of view and great command of facts they did not destroy the old school, but merely compelled its adherents to make more modest statements. This failure was due to the lack of a method of historical interpretation in harmony with the facts they were using and the conditions they were investigating.

Economic history and the economic interpretation of history are different concepts and have been forced upon public attention by two different groups of thinkers. Economic history is a question of facts—of the discovery and utilization of those facts of yesterday for which the economist of to-day has some need. The economic interpretation of history is a study of these data and of the method of utilizing them. It enables us to reason about past events in the same way that we reason about present events and to find common principles that will apply to both. Economic dogmatism concentrates attention on the dominant features of a given age or nation. Economic interpretation eliminates dogmatism by comparing the dominant features of many ages and clearly presents their points of difference and similarity. In this way a new theory arises with a broader basis, one more closely in touch not only with history but also with the sciences from which the economic premises come.

There are, however, two diverging lines of thought, each of which is called an economic interpretation of history. One group of men ask what light history can throw on present events. Their interest is in the present and they use history as a method of interpreting it. The other group ask: What light can our knowledge of present events and conditions throw on those of past ages? The first group assumes a knowledge of the past superior to that of the present and hopes to use this knowledge to clear away the difficulties of interpreting contemporary events. The second group contends that our knowledge of present economic conditions is greater than that of past ages and hence that it can help us to supplement our meager knowledge of the past.

If we wish to be accurate in the use of terms this first viewpoint should not be called economic interpretation of history, but an historical interpretation of the present. That which is interpreted is not history but current events, while the method used is not economic but historical. It is only the second viewpoint that attempts to interpret history and does it by an economic method.

It will add to the clearness of the contrast if the term "history" be eliminated. History in both cases is used in a popular way and as a result its interpreters fall into a needless conflict with those historians who want the facts of the past rather than their present significance.

It would be clearer to speak of the social interpretation of current events instead of the historical interpretation. Those who employ this method are interested in social affairs and use social methods of investigation and social principles oftener than historical methods and principles. It is still more clear to speak of the traditional interpretation of current events. The facts presented and the ideals emphasized are those which, wrought over

into popular tradition, have become motives prompting intuitive response. The popular historian seizes the telling events of the world's history and by recounting them vividly tends to make people act to-day as their forefathers acted in the epoch-making struggles through which the race has gone. "Act to-day as your fathers acted in their day." This advice may seem dictated by history; but it is the voice of tradition. The economic interpretation of history starts with an analysis of present conditions and opens the way to a theory of social causation. In contrast with this method the historical interpretation of present events accepts the traditional view of the past and uses social prediction as a means of exerting social influence. The prophet strives to be a social leader. Economic interpretation as a method thus stands in contrast with social prediction. There is no real opposition between economics and history or between economics and sociology. It is only in the field of prediction that opposition appears. The scientific historian avoids the conflict by refusing to predict, but as the historian becomes modest, the social enthusiast becomes bolder, and, using the same methods as the predicting historian, he falls into similar errors.

Should social investigation begin with a study of the past and predict events from it as a base, or should a study of the present be first made and its results be used to interpret the past? Of the past we have social tradition; of the present we have economic knowledge: Which is the more reliable as the basis of deduction?

Were not the knowledge of the past defective its study might give a starting point equally valuable with economic interpretation that starts from the firm foundation of present fact. The first canon of social prediction is, "History repeats itself." A series of repeated effects occurring under similar social institutions gives ground for the judgment that these institutions will always produce like effects.

In contrast with this, economic interpretation starts with the assumption that like economic causes produce like social results. Prediction can be made from one race or civilization to others only as the economic conditions back of them are the same. It is not like race, like institutions, like tradition or like consciousness of kind, but like economic conditions, that give a sound basis for prediction. Social prediction is of necessity based on data drawn from different races, institutions and civilizations. This evidence has little value unless a similarity of economic conditions exists as the antecedent of race, institution or civilization. An economic interpretation of past events must therefore precede valid prediction.

There are two channels in which thought runs and two bases on which it rests. The physical environment of a man is made up of objects upon which welfare depends. The force that perpetuates and increases this contact is desire. No object is a part of the conscious environment of men until they desire it or the means of avoiding it. Thought based on desire or arising out of its influence is plainly economic. But thought has another element not derived from the immediate objects of interest: this

is tradition. Past conditions and events do not persist. The events and conditions of to-day cease with to-day, but new ones appear to-morrow. Economic conditions are thus short-lived, but the habits and thoughts that yesterday's conditions evoked live on and modify the present.

The newer biology makes the distinction between natural and acquired characters and affirms that the latter are not inherited. All acquired knowledge must pass from generation to generation by the repeated impressment of habits and thought upon the individuals of succeeding generations. This knowledge depending on constant repetition for its continuance, is tradition: and imitation is its great vitalizing force. Economic thought is the social expression of desire as tradition is the social expression of imitation. These two forces control current events and the differing interpretations of the past and the present depend upon the relative emphasis given them.

Professor Giddings has shown that the stimuli arousing activity are of two orders.[1] The original stimuli come from the immediate environment; the secondary stimuli are the products of past social life kept alive in the present. These products of past social life have, however, only one way of being continued and that is through the constant repetition that creates tradition. The original stimuli also are of no importance unless they awake response; and this response is desire.

Changing the viewpoint from stimuli to that of response to stimuli, makes desire and tradition the sole forces that determine present action. In this contrast tradition includes all of the products of past responses that have been continued through imitation reinforced by repetition. These traditions blend and as they blend they become the basis of history, institutions and ideals. Desire operating under favorable conditions creates mobility of men and goods. This mobility concentrates in productive regions men who bring with them the traditions of the localities they leave. The mixing of population forces a blending of traditions. Opposing elements are suppressed while similarities are emphasized and around them the old traditions cluster in new forms. These blended traditions are elevated into morality, broadened into ideals, and projected as standards of future action.

Each new mingling of population due to an increase of resources makes a breach between economic conditions and inherited social traditions. Before an equilibrium is reëstablished a transformation of tradition takes place, giving higher ideals and better institutions. The breach between economic thought and social idealism is thus steadily widened and the opposition between them is more pronounced. In its lower forms, tradition is the result of conflict and reflects the opposition arising when men contest for the meager results of isolated localities. It is usually expressed in race feelings and hatreds. In its higher forms, however, tradition is an expression of likeness. A consciousness of opposition and fear is replaced by a consciousness of kind.

[1] "A Theory of Social Causation," a paper read before the American Economic Association at the New Orleans meeting.

Each element in a composite population has its own traditions which blend with other traditions only when the common points are emphasized and the antagonisms are suppressed. The oft-repeated stories of the old life are retold so as to interest larger audiences. To each group of hearers the newly-told story can have a meaning only when it incorporates some of the tradition with which it is familiar. Writers and orators instinctively suppress points of disorder and blend and elevate what appeals to all. Tradition is thereby transformed into idealism and becomes a standard far above that realized by individual men.

Government in England, for example, is plainly a group of traditions. Transferred to America, it becomes political institutions; transferred again to cosmopolitan France, it appears as political ideals; while in centralized Germany it is further transformed into social democracy. Each step has resulted from the discarding of local antagonisms and the emphasis of generalized truth.

Because of the simple conditions under which the Republican party arose it could concentrate its attention on three evils, Rum, Romanism and Rebellion, but in recent years, to meet the conditions of a more composite population, it has been forced to elevate its standards and to generalize its principles until it appeals to the classes, sections and races it formerly antagonized. The narrow tradition of the primitive American is thus transformed into a broad liberalism and the American Government becomes capable of handling race problems that our forefathers left untouched.

A labor leader who undertakes to organize unskilled laborers finds a race consciousness built up on race antagonism. When this thought is translated into the language of his hearers, words are used which express the hatreds surviving as race traditions. The employer is associated with the foreign misrule and the pent-up feelings which in their old homes went out against their race oppressors, are turned upon him. A class consciousness is thus developed that submerges the race antagonisms of earlier epochs and prepares the way for a broader citizenship. Race responses are replaced by class responses and these by social coöperative responses, which in turn are elevated into a democratic cosmopolitanism. Every transformation of tradition gives to its standards a greater coercive force. The result is idealism which by covering the future as a social projection gains a universality akin to religion.

Social mobility arises from the pressure of increasing desire; social stability from the growth of tradition. Social projection is the union of the two to be realized only in the distant future. With these forces at work there can be a steady transformation of tradition from a crude form of ancestor worship to an attractive social Utopia where all ideals become realities.

Following are some of the stages through which thought passes during this transformation. In a rough way they indicate the line of progress, though no claim is made to strict accuracy:

Imitation,	Biography,
Tradition,	History,
Ancestor worship,	Romanticism,
Hero worship,	Literary lore,
Primitive poetry,	Individualism,
Precedents,	Idealism,
Codes,	Social democracy,
Morality,	Social projection.

Social democracy fixes the attention on the present and hence tends to emphasize the distribution of wealth. Social projection pictures an improving future and concentrates interest more on the accumulation of wealth and the bettering of industrial processes than on its distribution and consumption.

I hope it has now been made clear that the traditional interpretation, the historical interpretation, the social interpretation and the idealistic interpretation of current events are practically the same. They differ from one another only in the degree to which the idealistic transformation of thought has taken place. They all strive to influence the present and to improve human conduct through the study of past examples. The blending of traditions accomplishes this result and hence tradition and history pass over into idealism by easy stages. Economic practice becomes tradition and tradition is restated until it is transformed into institutions, ideals and social principles. All this helps to make good conduct, but it is not a safe basis for prediction.

We cannot accept this traditional interpretation because tradition has been transformed by its growth. Still less can we accept an "economic" interpretation of current events, because other than economic causes have helped to shape the present. The "all economic" or material interpretation of the present is defective because it neglects the effect of heredity and tradition on human conduct. The traditional or idealistic interpretation is likewise defective because it neglects the changes in economic conditions that make present sequences in events different from those of the past. Through the economic interpretation of the past the similarities and differences in present and past conditions are brought to light and the limitations to social prediction become manifest.

Nor is economic interpretation the method of economists as opposed to that of historians and of sociologists. Economists are bound as tightly as other thinkers by the chains of tradition. The rapid development of the Ricardian tradition is evidence of this. Nor is the new thought exclusively the work of economists. Von Ihering's *Evolution of the Aryan* stands the tests of economic interpretation better than does the work of Karl Marx. The theory of exploitation is the transformation of a class tradition into a form of idealism. This is of social importance, but not an economic law.

I give below some of the canons of economic interpretation so that the

validity of social creeds may be more easily measured. Economic interpretation tests these as science tests the miraculous in nature.

1. Like economic causes produce like social effects.
2. Progress depends on the increase of resources.
3. An economic interpretation of past events must precede an historical interpretation of present events.
4. Economic interpretation must precede social prediction.
5. Social causes have economic antecedents.
6. A study of economic epochs should precede a study of nations and races.
7. Traditions which blend in their union strengthen and elevate each other.
8. The greatness of men is due not to their moments of inspiration, but to the conflicting disciplines to which they have been subjected.

Much of the present confusion of thought would be obviated if it were kept in mind that progress depends on an increase of resources. In the study of an epoch or nation it must first be determined whether resources are decaying or improving. The decline of Rome was inevitable as soon as Italian resources fell off. Rome could extend its rule by conquest and make individuals and even armies wealthy by plunder, but this burden on the conquered races helped their decline, which in turn further weakened the Roman State.

It was the long, steady pressure of decaying resources that crushed Rome as it has crushed other nations similarly situated. Immorality and extravagance hurt to-day, but they have little permanent influence if the creation of wealth has gone on unimpeded. Each age brings up new men under the discipline of work and their descendants give tone to the succeeding age. Should they drop out through wrong-doing, their places are filled by a new generation of workers as new blades of grass come in the place of those cut. Give rain and we have grass; give work and we have men.

We need not go beyond the domain of geography to seek the error in the social and historical lore that is made the basis of current prediction. The region occupied by the Western civilizations of the Old World is divided into two parts by the Alps and the chains of mountains that extend eastward. Asia Minor, North Africa and the south slope of Europe are thus one geographical unit. The north of Europe forms a similar geographic unit. The Gulf Stream gives up its moisture to the Northern Plain. The westerly winds in the central basin are dry, bringing little moisture from the ocean beyond. Droughts are common and the source of great misery. The vast northern plain suffers from an excess of rain and from a lack of sun. Its crops, like the cereals, can stand plenty of rain, while root crops prevail in the central basin where heat and sun are abundant though rain is deficient. I need not go into details to show that these two regions stand in marked contrast and that scarcely a physical feature which is important in the one prevails in the other. If economic forces count, these two regions should produce radically different civilizations, institutions and social traditions.

The German differed essentially from the Roman when the two civilizations came into contact. But as the Southern civilization proved superior, the traditions, institutions and culture of the South were impressed on the North and so thoroughly has this work been done that the imposed institutions and social traditions now seem a second nature. We have so completely exchanged ancestors that we think in the terms of the Roman, Greek and Semite rather than in terms of the German. We accept as precedents the traditions developed to meet the conditions of the dry, hot South and forget to test them by a comparison of the two environments. Roman precedents are good in North Europe only in so far as their physical characteristics are the same.

Viewed in this way it will be seen how completely predictions based on the conditions of the South fail when applied to the North. The history of the Southern regions shows a succession of races and nations each having a period of prosperity followed by a period of decay and a final disappearance. That nations have a period of youth, manhood and decay—that the history of each individual life is repeated in the history of nations—is a view based on the economic conditions of Southern Europe and Western Asia.

But is this law of the rise and decay of nations a general law or a peculiarity of the region where Southern civilization arose? It is plainly a local law. I have only to show that the slight rainfall of these regions has geologic causes in order to demonstrate that the decline of nations was due neither to social conditions nor failings, but was the inevitable result of changed climatic conditions.

Progress is due to the increase of resources; decline in civilization follows a failure of resources. A tragic end awaits a nation cramped by a reduction of the food supply. There are many ways of proving this, but I shall take a bold one that demands some imagination. The land masses of this Central Basin seem in early historic epochs or in those that immediately precede them, to have risen to higher levels, converting many depressions occupied by lakes and seas into sandy wastes. Lower the level of the Sahara by 500 feet and it would become an inland sea. When this region was covered with water the southwest winds were moist and carried abundant rains to the eastern plateaus. Arabia and Persia could then have lakes where now there is only blowing sand. The high lands would have a verdant foliage and be fit centers for growing nations.

When civilized men gained a foothold in this region the elevation of land may have been completed and the decline in rainfall begun. The uplands would so become fine grazing land and the lowlands would be centers of agricultural activity. Careless tillage and the destruction of trees would increase the natural denudation of the uplands and render them less habitable. This would force an unrest in the upland population, a movement to lower levels and a struggle for their possession. This contest once begun, would be a perpetual process. Each downward movement of population would develop a new civilization enduring until another unrest in the

highlands brought a new horde of barbarians to destroy it and in turn to develop a new one. Region after region was thus denuded and civilization after civilization fell before the steady pressure of the upland races forced out of their habitat by the increasing forces. A decreasing rainfall and an increasing denudation of land, forces nations to move rapidly through the various stages of progress and in the end crushes them through the lack of resource.

There is, therefore, a long series of these short-lived nations, each repeating the other's history, because back of them were the same processes of growth and decay. The tradition of these sequences is the basis of the maxim that history repeats itself, while the struggles to resist invasion, by developing the hero idea, gave rise to the modern notions of character. But the law is neither an historical nor a social law; it is merely the pressure of geologic changes on the civilization of a given region. Outside of the great central basin the law fails of verification because the climatic conditions are altered.

In marked contrast with these climatic conditions are those of the great Northern Plain of Europe. A rank vegetation keeps up the fertility and usually replaces what is lost. Each generation sees Northern Europe more productive and capable of supporting a larger population. Growth and stability will thus be a characteristic of the Northern nations so long as the Gulf Stream flows. They have a perpetually improving economy giving a firm basis for enduring social institutions.

No nation of North Europe goes down as the Southern nations went down one after the other. A reconstruction of national boundaries often takes place; but with each reconstruction comes a period of renewed growth and prosperity. France has been the only apparent exception. Instability in government followed its great social revolution and gave to traditional views a new life. But order and stability have again been restored and the steady progress of France compares favorably with other nations.

If this be true the traditional view of the course of history needs correction and the mass of Southern traditions imposed on Northern nations by the new civilization that Christianity brought must each be tested by means of a comparison between the conditions under which it arose with the conditions that now prevail. The narrowness and defects of Southern traditions will then be exposed and the ground cleared for a new view of history based on the conditions and experience of North Europe.

The realization of this great break in economic conditions due to the transference of civilization from the South to the North of Europe and the consciousness that many of our cherished traditions are abnormal, help us to a fruitful study of present conditions. A new break of similar magnitude has been made by the transference of civilization to America.

The civilizations of North Europe are enduring because their basis in climatic conditions is secure; but, though enduring, they are narrow and cramped because their food resources are so limited. A wet, cold climate is good for grass and the cereals and therefore bread and meat become the

standard of life. The pressure of population raised their price and kept the common people poor and dependent. Under these conditions a civilization could continue, but not without great abnormalities due to high prices. All these restraints were escaped in America and for the first time a natural level of food prices permits a normal development of civilization. Not only has America a better food supply than Europe, but the barriers to commerce have been so far broken down as to make the food supply of the whole world available at our great centers.

A new civilization is now possible to which those of the past can offer few analogies. Individual struggle has practically ceased. A sufficiency of food comes to the unskilled laborer and the increase of population, even when augmented by a million immigrants a year, does not increase the pressure. We have higher standards to-day with 80,000,000 people than we had two generations ago with 40,000,000 people and we could support 300,000,000 with as great ease and with as little individual struggle. Surely this is a break of a magnitude that the world has never before seen and should be followed not only by a great uplift in social standards, but also by changes in traditions, institutions and ideals that will separate our civilization from its predecessors and give it not only perpetuity but breadth.

The facts on which this judgment rests are so familiar that they will, I fear, make dry reading. Our resources and growth have been often pictured, but men do not realize what they mean. They think of our traditions, institutions and ideals, transferred in the main from other civilizations, as unchangeable possessions and fail to see the growth and transformation through which all things social go. I must repeat these familiar facts, however, to make my point as to the present importance of the economic interpretation of history.

The Great Central Plain of North America is a vast storehouse of food. We have the wheat that Europe has, but we have it more abundantly. We have more extensive grazing regions and with corn for fodder have superior facilities for raising cattle. Pork never took its proper place in the diet of the world until the great cornfields of the West came into existence. Of all these stable articles of ancestral diet, vast quantities more might be raised without putting undue pressure on the soil. Our warm summers and clear climate make root crops even more productive than the cereals. To think of the changes in diet that the cheapening of sugar has made is to realize in a measure what an increase of population will follow the full utilization of available root crops. We have combined the resources on which the civilization of North Europe depends and those which made the ancient civilizations of the South. The emigrants from South Europe find here a possible diet like that of their home countries and in its use they evoke qualities in our soil that lay dormant as long as the Northern races were fed from it.

In addition to these home possibilities the nearness and accessibility of the semi-tropical regions of the West Indies and Central America make many new foodstuffs available and in quantities practically unlimited. Measured

in food, these regions can support as great a population as can the United States; and the cost is less than that of the home supply. We need only a fruit- and a vegetable-loving population to utilize these new food materials, and it is at hand in the emigrants from Southern and Central Europe who already have habits and traditions favorable to a vegetable diet. Surely, then, their influence will cause a break in Anglo-American traditions and a nearer approach of the American diet to the possibilities of American conditions.

This food supply could not be made available nor could the absorption and assimilation of Southern races take place without the recent cheapening of the cost of transportation. Even delicate fruits can be carried halfway round the world at a reasonable cost and with ice and cold storage they can be evenly distributed throughout the year. The new diet can, therefore, have a freshness and variety superior to any before available.

Coincident with this improvement in food and transportation have come social betterments that have lengthened life and made people more healthy. Great scourges like the medieval plagues are no longer possible and fevers are so well under control that they have ceased to be grievous afflictions. A normal length of life is for the first time possible to the working population and when traditions of hygiene and right living have developed among them, suffering from ill health will be a negligible quantity.

To attain all these advantages a rapid increase of capital is necessary; and fortunately the growth of the saving instinct has kept pace with other improvements. A slight change in the rate of interest calls forth capital enough for our great enterprises. There is as little limit to its growth as there is to our other resources. When it is freely used by healthy, well-fed men civilization enters a stage distinct from any of its past forms.

Food, health, capital and mobility of men and goods are the four essentials to progress. All of them are now abundantly supplied and capable of indefinite increase. Must not this be the basis of a great social transformation, changing our institutions, habits and traditions until they establish a social adjustment as complete as the present economic situation permits? If there was a break in traditions, institutions and ideals when civilization moved from Southern to Northern Europe, a still greater crisis is before us when American civilization matches American possibilities. History repeats itself when economic conditions remain static, but the crude application of its maxims aggravate evils when economic transformations are in progress.

The picture I have drawn of economic changes will not be complete without a third illustration of the limits of social prediction. Progress having hitherto been on race lines, tradition emphasizes the idea of race supremacy. Sharp distinctions have been drawn between nations and their habitats; and one's own kindred are assumed to be right, while strangers and enemies are wrong. The mountaineer is pronounced superior to the plainsman, the countryman to the urban dweller and the men of cold regions to those of hot climates. Buckle's contrast between the emotional East and the intel-

lectual West is a western tradition without geographic truth. Just as baseless is the dictum that political stability is impossible south of the frost line.

It is also claimed that civilization must be Teuton or Anglo-American in racial quality, and that its environment is a narrow strip of the temperate zone in North Europe and America. But in fact the barriers to the expansion of civilization on which these traditions rest have been swept aside. More than ever civilization is economic, and far more extensive than before are the geographic bases of material prosperity. The essentials of progress, security, food, health, capital and mobility of men, of goods and of thought are now found in many regions outside the wheat belt of the north temperate zone; and other races than the Germanic possess the combination of essentials and benefit by it. The expansion of civilization to new places and races has begun and will not end until the level of Southern and Eastern life has been raised to that of the North and West. Cuba and Porto Rico have to-day better conditions than Virginia had two centuries ago and in Japan there is a happier combination of essentials than could have been found in Elizabethan England. Surely if England and Virginia could make men under their conditions, Japan and Cuba can likewise attain the level of our present civilization.

Great as is the good that flows from the bettering of economic conditions, a still greater springs from race assimilation and the blending of traditions that succeeds economic contacts. Society is perpetuated through its traditions rather than through its heredity. Mobility of goods is less necessary to a general advance than is mobility of thought. By contact we shall raise our own ideals and gain as much as the Eastern and Southern races will. Religion, morality, political institutions, public law and literature will all be revivified, lifted and freshly idealized.

The intellectual and national awakening of the races of Southern and Eastern Europe and of Japan shows the presence of a leaven that will transform their static traditions into dynamic forces more vivid than those of the Anglo-American. And the moral awakening in England and America which demands fair play and justice for men of other races and lands is an index of a broadening and elevating influence that will delocalize Anglo-American traditions and make us truly cosmopolitan. Such interruptions and transformations of tradition narrow the realm of social predictions as strictly as do the modifications of economic conditions.

The present crisis demands a knowledge of the transformation in tradition when breaches occur between it and the economic situations in which it arose. But we cannot safely go into an unknown future with a mere knowledge of present economic conditions. Nor can we safely follow the traditions of the past formulated as the basis of historical and social prediction. We must study the past through the present and the present through the past. This is economic interpretation and it is a vital present need.

THE CONFLICT THEORY OF DISTRIBUTION[1]

THE problems of thought adjustment are caused by changes that superimpose a new on an old civilization without anyone's being conscious of just when or how they are effected. And this in economics creates the difficulty that the truth, or at least the half-truth, of the old is the vicious falsehood of the new. Economists cannot therefore build straight upward or onward, adding story to story; they must always tear down and build over, using many old bricks and structures, but putting them in new places. And the errors of the day are merely old truths that have outlived their usefulness. The economist therefore seems in revolt because of the importance he attaches to present facts. Each new epoch begins with a distrust as to the truth of some old, seemingly well-founded, doctrine, and ends in an open revolt as its inadequacy becomes more apparent. The opponents of economists are always at their best when they resort to sociological and historical evidence; while the economist is never victorious except when on the sure foundation of present facts.

So much for general statements; the particular application is that the old harmony in economic thought has been disturbed by the injection into its realm of a mass of sociological and historical data that has been blended into a system by the socialists. If this new group of thinkers called themselves sociologists or historians they might be disregarded. But they openly claim to be economists; and the worst of the matter is, they have, so far as statement goes, the mass of the older economists on their side. Nothing pleases a socialist or a single taxer better than to quote authorities and to use the well-known economic theories to prove his case. The economists rubbed their eyes in surprise when this assault first began; but they soon realized that their favorite authors were not so perfect as they supposed, and that economic doctrine must be recast so that it would rest wholly on present data. This, I take it, is the real meaning of the present movement in economic thought. It will not accept socialism; and to free itself from the snares into which it has fallen through the careless statements of its creators, it must isolate itself more fully from history, sociology, and other disciplines that give undue weight to past experience.

To state this contrast more specifically: sociology, socialism and history have tied themselves up to the conflict theory of progress. They even drag into their alliance biology, with its theory of survival. An economist cannot accept this conflict theory, because he finds that the progress of the present is due to coöperation and not to conflict. There is thus a direct contrast between present facts that make coöperation the basis of progress,

[1] Reprinted from *The Yale Review*. Vol. XVII, pp. 156-84, August, 1908.

and the data of the past that, as history, sociology or socialism, favor the conflict theory. If this be true, progress in economic thought must give increased emphasis to coöperation, and eject, as false, arguments and doctrines that favor discord or emphasize class interests.

While all economists would agree to this principle, it is most difficult to carry it into execution, because in the very fore of all economic discussion has been a conflict theory of distribution. The older economists divided society into three economic groups, whose interests were opposed and whose incomes grew only as those of other classes were cut down. And thus it is that to get rid of conflict theories in economics is no easy task, and it is no wonder that the progress of thought has been so hesitating or that its goal seems so uncertain.

The escape, however, is not by the further elaboration of static theories which emphasize conflict, but by a transfer of the attention to the dynamic phases of economic progress. There results from this newer viewpoint a theory of distribution that emphasizes the harmony instead of the opposition of interests. The older thought assumed that for each kind of income there was a social class which was interested in its defense. The social condition of England at the time economic theory was formulated favored this concept. The aristocracy held the land, the so-called middle or industrial class owned the capital, while the great mass of unskilled and politically unprotected laborers did the work. The essence of the Ricardian economics was an opposition to the aristocratic landlords, and it succeeded so well that an imputation of being unearned was put up on their income. In America, however, while we have rent, we have no landlord class. The income from rent and interest is so diffused that all income-receivers form one class. It was thought by economists some years ago that profits would be the basis of a new class of promoters whose interests would clash with those of conservative investors. But while it was easy to set off profits by itself and to determine its law, no social class appeared to claim it. Profit holders blend with the holders of rent and interest and think of themselves as a social unit. All get profits, rent and interest in their income: some get more from one source than from the others, but not enough more to separate their interests from those of the general class to which they belong. Any kind of income that has no special class to receive it becomes diffused income in which the larger social classes share, perhaps unequally, but yet not unequally enough to break up the harmony of feeling among them.

There thus arises in dynamic economics a diffusion theory of distribution in contrast to the conflict theory so much emphasized in static economics. According to this law, incomes blend as the classes unite in larger units, so that the funds that are separate in static conflicts are diffused when men form larger social groups. Break up social stratification and the various kinds of income will blend into a common fund, in which all share with enough equality to preserve social harmony. This blending and this harmony have been plainly worked out in the case of the holders of interest, rent and profit. It is equally clear that it is being worked out in case of

the classes whose incomes are less than $1,000 a year. The smaller groups that united to defend special interests are plainly losing their hold, and into their places are coming larger groups that defend the general interests of the working class. But while this group is nominally wage-earning and its members both talk and think as laborers, yet, as they succeed, more of their income is derived from other sources, until when families get $1,000 a year their income is derived more from monopoly, rent and interest than from mere wage-earning power. They own houses, they receive special rents from the position of local advantage they hold, they enjoy monopolies through their trade unions, and they derive great advantage from the municipal expenditures that give them water, health, sanitation and education. Their income is thus not pure wages, but a diffused income derived from many sources. And this diffusion is promoted by the growth of capital, the mobility of labor, the variety of consumption, and the increase of efficiency. Every movement that places laborers where they belong, and causes them to consume in greater quantities the complementary goods that their new situation affords, breaks down the opposition of interests they formerly felt and places them more in touch with the larger interests of the community. The various claims on income due to past services and conditions are reduced. Rent, profits, interest, risk and monopoly receive smaller shares, thus leaving more of the total product to the present workers. There is thus revealed the law of economic harmony which asserts that when a worker enters into group activity his interest lies with the larger group and not with his class, race, section, or industry. General prosperity is of more importance than local or class sources of income. It is the diffusion of income in a dynamic society which makes this true. Any one kind of income is of minor importance when compared with the complex income from other sources. Economic advantage is thus promoted by attachment to the larger group; economic discord by the emphasis of small groups and particular kinds of income.

I doubt if any economist will disagree with me in this enunciation of principles, or with the trend of events I have outlined; but there will be disagreement when particular applications are made. The situation is so new, the principles are so imperfectly worked out and the advance which each economist has made is in such a special direction, that we do not see clearly the relation of general facts and principles to the particular doctrines in which we are specially interested. And this is especially true at the present time, when each economist is at the same time a prophet of the new and a defender of the old—where each has broken with tradition in certain fields and rigidly holds to it in others.

As an example, take the writings of Professor Clark, in which there are traces of three stages of progress. The oldest element is his concept of natural justice. Were he an eighteenth century writer, we should say of him, as of Adam Smith, that he was a natural theologian: for it is the thought of Professor Clark, as well as of Smith, that economic forces work for the good of all men, and, if they are not artificially interfered with,

will give to each one his just economic reward. No one since Smith has emphasized this thought as fully as Professor Clark, nor has any one else expressed so deep a conviction of the ultimate justice of economic processes. The conflict theory of distribution, to which he has given so much attention, appears to be opposed to his earlier thought; but he has succeeded in transforming it into a precise economic creed, so well expressed and so beautifully illustrated that it seems rather a part of the gospel of peace than of grim struggle. The third element is the dynamic economics, which by itself is quite as antagonistic to the conflict theory of distribution as is his concept of natural justice. Nor do I think he has been successful in harmonizing the static and dynamic phases of his thought. We have had many promises and even a partial fulfillment of them in his latest book. Yet he holds as firmly as ever to the thought that ultimate laws are static, and that the dynamic represents the friction and stress of change, which has great momentary importance but is a disappearing factor after the lapse of time. I do not wish to argue this, for the real point is that it is so difficult to unite in one system ideas of natural justice and dynamic change with those of static conflict that no one but a great thinker would attempt it. And his success will last only while the charm of his style and the nobility of his character exert their soothing influence on his contemporaries. In the end must come the breaking of the personal spell, and then the parts fall in their appropriate place in opposing modes of thought.

There would be little point to my remarks if events were not hastening this dismemberment. Socialism is a growing, persistent force, and is badly in need of a strictly economic basis. I do not say this because socialists realize it, for they claim even now to have an economic basis. A clearer analysis of their arguments, however, shows that they are disguised sociologists whose economic doctrines have little validity. The theory of conflict is plainly sociological, and the premises of socialism come clearly from this and not from economic facts. The verifications of socialistic dogmas are historical. It is only through illustration that their ideas are made to seem economic. Struggle is in the economic world and many apt illustrations of its importance can be secured. And yet it is not the principle of the economic world and cannot be derived from its premises. The only hope of making socialism economic lies in utilizing the conflict theory of distribution and thus keeping up the class war on which its success depends. Should socialists seek to do this, no writer will furnish them more material than Professor Clark. The conflict theory is by him carefully stated and easily separated from other doctrines. There are pages and chapters used in the logical presentation of his theory of distribution, while merely lines and paragraphs state his faith in social justice and dynamic change. These last give the tone to his books, but the theory of distribution is after all their content.

But the real danger of the dismembering of Professor Clark's theories is nearer than that which may arise with the advance of socialism. The present controversy has its perils from just this source. Professor Böhm-

Bawerk has offered the olive branch of peace, in the shape of certain concessions, in the hope that Professor Clark in turn will accept the new theory of interest. A great mass of economic facts has been collected in support of this new theory of interest, and the evidence in its support is overwhelming if it is looked at as an isolated doctrine. And yet Professor Clark cannot accept it, for if he did he would destroy that balance between natural justice and the conflict theory of distribution upon which the success of his system depends.

If it be granted that the return to capital is not fixed by its productivity, and that interest is a tribute of the psychically inferior to the psychically superior, there would be nothing left of the theory of natural justice. There is a bar to exploitation if shares are fixed by the productivity of the agents in production, but there is no bar if interest is the reward, not of productivity, but of psychic superiority. The acceptance of the defective psychology theory of interest would thus dismember Professor Clark's system, and place the resulting theory of distribution squarely in harmony with the position of the socialists. Conflict would be supreme and class harmony impossible. Doubtless Professor Clark would like to gain a general acceptance of his theory of distribution, but not at such a cost. And it should be noted that Professor Böhm-Bawerk's concessions are to the conflict theory of distribution and not to Professor Clark's general mode of thought. For this reason there is a real danger in the present situation. We all want harmony, but if harmony of thought means the elevation of conflict theories to a supreme place at the expense of other elements in economic theory, the price is too great.

When I read Professor Böhm-Bawerk's recent articles in the *Quarterly Journal of Economics*, my first idea was that he had changed his position. It seemed a real retreat. But I know too well how hard it is to substantiate such a claim. There may be early essays in which these ideas have been stated, but their present expression reveals elements in his thinking which have found no recent outlet. I did not suppose he regarded capital as an agent in production, that he thought the theory of imputation a basal law, that he deemed static forces to be dominant in dynamic societies, nor that he wished to use his theory of interest to bolster up the conflict theory of distribution. If these doctrines are accepted, the Austrian theories descend from a new statement of economics to the defense of a particular proposition. The cost of this change is too great to be borne in silence.

When differences of opinion show themselves between writers who were seemingly in agreement, it is hard to point out where the disagreement lies. Usually its source is in the general background of thought which all accept but which no one clearly expresses, and not in the reasoned statements that form the body of a writer's exposition. A quotation is misleading because its statements mean this or that, just as the reader supplies that missing background. I find it difficult to restate from Professor Böhm-Bawerk's articles the doctrines with which I disagree, because our differences lie in this background. There is an illustration, however, that clearly

involves our differences, and this I shall take as a starting point. He says:

"Here Professor Clark assumes that in an isolated society there are one thousand laborers, and that at their disposal stand 'a hundred million dollars' worth of capital' (let the reader note the precise words). He sets forth (and we should all agree with him) that in consequence of the 'rich environment that these conditions afford'—they mean a capital of $100,000 per head—the product of these thousand laborers per capita will be enormous. Every laborer will have at his command, in extravagant amount, the best and most effective materials and machines. Suppose now an additional thousand laborers, capital remaining the same. Each laborer will now have at his command a capital of $50,000 instead of $100,000. This capital will have to take the form of instruments which are on the average cheaper and less effective than those which represent a capital of $100,000 per head. Consequently, the output per man will be less than before. So far still we are completely in agreement with Professor Clark." [1]

Notice the background of this picture. Laborers are in a rich environment, each with $100,000 capital. When more laborers arrive without capital, how is the situation met? Not by more work that would make more capital, but by a division of the existing capital and descent to less productive methods of production. There are poorer tools and a lessened output per man, in spite of a rich environment which apparently is incapable of exerting the slightest influence on the workmen. What is lacking? Why cannot the workmen make the good tools they formerly used, and by their increase in numbers get more, not less, out of the splendid environment? An answer is given in economic theory which doubtless would be accepted by the users of this illustration. There is need of more than mere labor to create capital. We must have men who save as well as those who work. I need only to quote the well-known statement of Adam Smith that parsimony and not industry is the cause of the increase of capital, to show how good is the authority back of the belief that laborers, even in the best of environment, would degenerate if not helped by another social class. Bring into this society a group who do not work, but who have the virtue of not consuming, and then the laborers can utilize the rich situation and do the work which makes capital, but which, as the economists picture them, they are not able to do without the aid of a fostering social class. And it is but one step from this picture of the older economists to the modern theory of distribution. Impute to the capitalists the difference between the low productivity of the isolated laborers using poor tools and machinery and the high productivity that comes from the best forms of production: there is thus given to the capitalists a utility which puts them on a sure basis; but at the same time a source of conflict is created in the sharp contrast between the industrial functions of the two classes.

It is not difficult to trace the origin of this doctrine, or to see why the economists have attached so much importance to it. Before Adam Smith's

[1] *Quarterly Journal of Economics,* February, 1907, p. 251. The concessions to which I object are mainly on the three preceding pages.

time work was looked on as the source of all products, and its importance was emphasized by thinking of the worker as being in direct contact with nature and getting his reward directly from his individual efforts. There were but two agents in production—land and labor—and but one share in distribution. The whole product, Adam Smith tells us, goes to the laborer in this primitive world. Modern industry, he says, differs from the earlier state by the use it makes of capital. And along with this introduction of a third agent in production comes the emphasis on saving as the source of capital, thus creating a second permanent factor in distribution. The industrial transformations have tended strongly to the further emphasis of capital, until its importance has become so great that it overshadows the other agents in production and seems to stand plainly out as a separate entity. And along with this has come the rise in power politically and socially of the capitalistic class, and the consequent eulogy of the saver as the cause of economic progress.

All this change is clear enough and natural enough. One cannot find fault with what has been done, or why it has been done. But one can rightly question whether or no Adam Smith's analysis is sound, and whether subsequent experience has confirmed his statements about the source of capital and its right to a place among the agents of production. An economist should also ask whether the modern refinements of his theory will stand a searching examination. For the elevation of capital to an independent place among the agents in production has resulted not only in giving it a share in distribution, but also in imputing to it the various other attributes which agents have. The emphasis of marginal productivity in the case of labor and land have caused thinkers to search for a similar attribute in capital; and, after the use of much ingenuity and more imagination, they find one by placing all capital in a series, with diminishing productivity and a final margin. And encouraged by this success they line up the capitalists, putting first those who have the greatest appreciation of future welfare, and at the end of the line the social derelicts who have great difficulty in keeping a dollar in their pockets. With a million people and a rate of interest of three per cent. the first 150,000 do the saving; raise the rate to four per cent. and numbers 150,001 to 190,000 are called in as recruits and drafted into an army. A further rise to five per cent. and numbers 190,001 to 220,000 pass over into the ranks of the savers; when the rate falls and the process is reversed, and the newer recruits are discharged and sink back into the life of thoughtless consumers.

This is a very pretty picture, but much prettier than true. To show its falseness a reëxamination is necessary of the reasoning that has elevated capital to the rank of a productive agent and has given it an entity separate from labor and land. And if capital is not an entity, with activities and functions like labor and land, it is quite possible that the eulogists of parsimony have also mistaken its function. This latter point is really of the greater importance, because if the increase of production is due to a single type of man and not to two diverging types, there is no advantage

in separating capital from the labor forces that created it. The theory of three agents in production is not forced upon economists by the facts of industry. It is made necessary by the arbitrary separation of mankind into two classes, and the need of finding an industrial function for each of them. When the economist frees himself from this presupposition, capital ceases to be a unit and falls into several distinct parts, each of which has laws of its own; or, to speak more accurately, it comes under the general laws of the group to which each part really belongs. There is no margin to capital as a whole, but each form of capital is an element in a margin created by the economic structure of which it is a part. A stock of consumption goods has a margin, but it is a part of the margin of consumption goods in general. Capital goods have a margin, but it is the margin of the labor that makes them. Capital sunk in land and other permanent improvements has a margin, but it is the margin of land and not a distinct margin created by its own peculiarities. And so with capital value, pure capital, or whatever name we apply to the general fund of values. This capital does not make a margin; on the contrary, it is the margin of consumption goods in general. The income yielded creates the capital value instead of the capital creating the income. We reverse the natural order of events to make a special class (the savers) do what in reality is done by the general body of consumers. There is a margin of labor, a margin of land and a margin of consumable goods, but no other margin. And each kind of capital steps into its appropriate class with its margin as soon as economists cease to elevate capital into an entity and think of it in terms of its specific qualities and functions.

Besides this error about margins, there is another, due to the confusion of problems relating to the origin of capital with those of the present structures in which we find it. Genetically considered, the eulogists of capital are right. The efforts of the past have made the present. Not only has capitalized effort made capital goods, but it has also made land and labor. Most land is really made land, and while not all the qualities of men are made, the industrial qualities are acquired characters impressed upon us by our ancestors. Their efforts have made us as they have made land and capital goods. The eulogists of capital overdo their case; for instead of showing that it is an agent along with other agents, they really prove that, genetically considered, it is the sole cause of progress and civilization. But however capital may have been created, it exists to-day in the form of economic structures, and in these structures capital always appears as land, labor and consumption goods. It is only in these structures that it has margins: for margins relate to present structures and not to origins. Structurally considered, there is no capital; all for the moment is land, labor or goods. Genetically considered, everything is capital, for the past made it for us. We enjoy an income that we do not earn. Capital thus has done everything; but, when we look about, we find that everything is done not by it but by labor and nature. All that we have is capital; and

yet nothing we do is done by it. In each moment of the past it did not exist; yet it is the only thing of the past that has come down to us. We owe everything to the past; and yet we do everything ourselves. This is the antinomy of capital caused by using the same words to express genetic and structural ideas.

It is this difference between genetic and structural that caused Adam Smith to stumble. He tells us that originally the whole produce of labor went to the laborer, who, after the use of capital, only receives a part of this produce. He also tells us that parsimony, not industry, is the sole cause of the increase of capital. The trouble is that he qualifies the wrong proposition. That labor receives the whole produce of labor is as true as it ever was, if we view industry structurally and not genetically.

By this I do not mean that Adam Smith's notions of primitive societies are correct. There never was a time when present labor did not have to liquidate heavy claims arising from past benefits. But all these claims tend to disappear, leaving the laborer the sole heir of social surplus. Nothing but labor and nature take part in present production, and nature is in no better position to claim a share in distribution than our ancestors. Were they here to assert their rights, they might get all instead of the mere pittance included in the interest fund. But they are not here; hence, to justify the incomes of living capitalists, a new doctrine is advanced. Not only must capital be created but it must be preserved, and he who preserves it does to-day the same service that our ancestors did when they made capital. And thus Adam Smith's theory slips over into a eulogy of saving. But the doctrine he enunciated should have been limited to those existing in a state of deficit and not to our modern societies with a surplus. The theory of labor always holds, while the source of capital changes with the progress of industry.

Smith recognizes two sources of the increase of capital. One is the growth of capital out of the profits of capital. The penny gets to be the pound if it is let pile up. This is the principle of accumulation. But back of this, and forming the basis on which it rests, is the saving due to the restraints on consumption. Genetically, all capital is due to saving. In a world of deficit there is no other starting point. It results from some one going without goods to which he is justly entitled. So far, all is clear. But how about the industrial progress that changes society from a state of deficit to one of surplus? Here the reasoning weakens, because we now change over from the genetic problem of origin to the structural problem of preserving what we have. And thus the argument is shifted from one of origin to the supposed difficulties of keeping people from using up what they have. Much is made of psychic defects of the masses, long accounts are given of the shortcomings of primitive men, and great stress is laid on the dissipations of soldiers, sailors, negroes, dock laborers and other social misfits. It is a dreary picture of individual degeneration that overlooks the social uplift that has made the workers industrious, frugal and long-

sighted. The weakness of the argument is that we do not appeal to the psychically defective either to make or to preserve capital. We give them their full income, which they use without limitation.

The preservation of capital is a structural problem, while its increase is genetic. To accentuate the difference, I shall state my conclusion at once. There is no way to increase capital but by more industry. There is no way to preserve capital but by a rate of interest. The rate of interest preserves what industry creates. We have thus two problems which must be treated apart, because one is structural and the other genetic. In the primitive society which Adam Smith pictures, there are no means of increasing capital except saving. The methods of production are static, and in all their regular processes yield a deficit. There are surpluses, but they are unexpected events, not the products of calculation. Men are forced by fear and induced by sacrifice to give up to others what, as individuals, they are justly entitled to. To become better, means to go without; and this moral attitude of mind, carried over into industry, results in a eulogy of saving as a twin sister of sacrifice. If both these fail, use is made of the constantly impending disasters of the primitive world to arouse fears for future welfare and thus put restraints on consumption. In this way social standards are depressed below their normal level, and the unexpected surpluses, which occasionally appear, are not used up in dissipation, but are converted into capital. We thus get an orderly society by the only means that a pain economy permits. When in modern times the sacrifice motive decreases, we put in its place the reward called a rate of interest. The higher price of present goods keeps men from using them up too rapidly. When we need to replace lost capital, we push up the rate of interest and thus induce the economy that fills up the gap made by disaster. But a high rate of interest will never create new capital. We can in times of disaster scare people into economy, but we cannot scare them into more efficient production. The increase of capital is the growth of efficiency, not a growth of saving. Fear and reward are conflicting motives; when we arouse the one we make the other dormant.

This general analysis is confirmed by a structural examination of industry. The well-known alignment of savers according to their psychic defects is genetic, not structural. We put at one end of the line the primitive races, and after them in order the advancing races, until we get the modern industrial worker. There is an accidental confirmation of this order in the fact that we have about us men of all these primitive types. The weeding out process has not eliminated them; and yet they form no vital part of modern economic society. They are in society, but not of it; for, while they constantly take from society, they do not help to hold any of its structural processes. For these we must look to normal men and to normal motives. Structurally considered, we must have a rate of interest; not because men tend to become dissipated and use up capital as primitive men do, but because we have so high a standard of life. The typical non-saver is not the psychic defective, but the man with a high standard of life. To-

day, if we consider only those who are active in molding our economic structures, it is the higher type of men who do not save and the lower types who do. We have practically reversed the conditions of the primitive world. We cannot, by any stretch of the imagination, assume that the man who earns $3,000 a year is the inferior of him whose income runs up into six figures. The facts would probably be the opposite; but in any case we must discard the assumption that psychic qualities control the rate of interest.

A better analysis shows that our esteem of the future is a social phenomenon determined by the group or class to which we belong. It is therefore a fixed estimate, changing slowly, if at all. It is our estimate of present goods that alters. Values, not future estimates, are psychic and fluctuating. When the rate of interest varies it is the value of present goods that has gone up or down. Future goods have practically the same value from year to year, for they are objects of social and not of individual regard. The standard of life is the corresponding social estimate of present goods, and, as it is raised, men are forced more and more into the present; and coincident with its rise, the regularity of industry suppresses the fear of disaster and permits the normal man to live more fully in the present and to give more attention to the immediate satisfaction of his wants. He thus wants more in the present and cares less for his future welfare. The rate of interest checks this tendency. It raises the value of present goods and preserves the capital that otherwise might be converted into present goods and used up. The check, however, is on those in advance and not on the tail-enders. The rate of interest does not check their dissipation; it may increase it by giving them more work. But it prevents pushing the standard of life of the better man up to a point where it endangers the structures by which this standard is upheld. The growth of wants outruns the growth of productive power. The rate of interest is the restraining force that equalizes these two forces. It is, therefore, a pressure on the higher, more normal men, and not on those who hung on from the primitive world.

This view conflicts with the current statements of economic doctrine and also with those of its masters. I could give a host of conflicting opinions of living and dead writers, but it does not seem wise to do so. One is apt in this way to give a wrong interpretation, and to impute to writers doctrines they do not hold. But while I might misinterpret others, I know what I have myself taught, and may safely put my former views in contrast with those I now hold. I think my errors were also the errors of other economists, and that many of them still hold these views. But of this each reader must judge for himself.

The simplest form in which my former doctrine appears is in the picture of what is called the "turn-over" of industry. I taught that at the beginning of an industrial enterprise the manufacturer had a certain amount of capital, usually in the shape of money. This money he converts into material, or with it hires labor, and in the end products appear which he

again turns into money. There is thus a starting point in money, a series of conversions as the enterprise progresses, and a final reappearance of money at the end. This description I still regard as accurate. I find fault only with what it is made to represent. I thought that, corresponding to the money, there was in the community a like quantity of consumption goods, and that the real process was that of converting consumption goods into production goods and then their reconversion into consumption goods. I now think that the wealth that started this enterprise was in the form of future goods, and that at the end it is still in future goods. The process we call conversion is merely a change of future goods from one form to another. The transformation of production goods into consumption goods is done by the consumer and not by the producer. The producer's sole task is to transform one kind of future goods into others. He does not start with a pile of consumption goods, transform this into production goods and then back again. He starts with capital in the form of material and machinery, and ends in the production of merchandise which the agents of the consumer convert into present goods.

The error in my former view I shall call the bookkeeper's error, because it consists in the assumption that industrial processes conform to the items of a ledger. The books show a money account, and the bookkeeper assumes that he has somewhere the amount his books call for. He puts all capital on his ledger as money, and then thinks he really has it in money. And then he assumes that for this money there exists a fund of consumable goods of equal amount for which it can be exchanged. His books thus show three things of equal amounts—consumable goods, money, and production goods—and he is constantly changing these from one side of the ledger to the other. If, at the end of a year, he adds up his items, he finds that the three columns contain equal amounts; and what is more reasonable than to assume that his books show the real facts? Once in a while those who accept the bookkeeper's estimate get caught. Producers in a panic rush to the bank to convert their production goods into money, and to their astonishment find that there is not money enough to go around. Bankers, like everybody else, call the production goods they possess money, and thus add to the general confusion that arises when men try to convert such goods into money. This form of the bookkeeper's error few economists make. I am sure I never made it. But I did assume that for every dollar there were consumption goods in existence. I thought when anyone had money he really had or could get a corresponding amount of consumable goods. I now think that if we all seized our money and rushed to the stores, there would be as many who would fail to get anything as there are depositors who fail to get money in a run on a bank. If we will take time, the goods that our money calls for will appear somewhere through the year, but it is not all here at any one moment. We have the same amount of money and of production goods at one time as another, but consumption goods appear and disappear each day. Their totals equal that of the money only when we add up all that has been consumed in the year.

The bookkeeper's ledger does not correspond to the reality of any one day, even if it tells the truth of a year's transactions. There is at any one moment ten times as much production goods as money, and probably the disproportion between money and consumption goods is equally great.

A second form of this bookkeeper's error that led me astray was in the theory of distribution. As I used President Walker's text-book, I shall reproduce his picture with some touches of my own. At the gathering of producers, at the end of a production epoch, each man presents his claim and his share is taken from the aggregate, represented as a huge roll of cloth. After this picture he presents another class distribution. Here the rent share of the total product is first cut off; then profits; then interest; and what is left is handed over to the laborers. This picture has the same thought back of it as the annual produce of Adam Smith and the national dividend of Professor Marshall. Most economists use it, although few of them state it as clearly as did President Walker. The assumption is the piling up of consumption goods for a period; and the final struggle for it then is like the scramble of ladies at a bargain counter. This picture is erroneous. There is no piling up of consumption goods. There is no moment when all the capital is in a consumable form, so that the saving principle must be evoked to get the goods again for the next period of production. In real production the consumers do not delay for a moment the use of all the consumable goods really in existence; and if they did it would do no good. All that is valuable for to-morrow's work is in future goods, and could not be used up by consumers even if they tried. The picture is another effect of the bookkeeper's error. He finds great masses of consumption goods on his books and imagines they exist.

A third form of this error lies in the theory of interest. As I formulated this independently of Professor Böhm-Bawerk, I shall follow my statement. And there is the more reason for this, as he has somewhere said my statement was defective—an error which I now admit. My thought was that production is really serial; one laborer following another in making products that afford no immediate enjoyment, until at the end there appears a mass of consumption goods from which all are rewarded. From this gross return a large part must be set aside to carry on future production, and if more than a mere fraction of the whole available fund is used up, future production is cramped, or rendered impossible. If, for example, a group of men make a locomotive, there is a long series of efforts without immediate reward. The pay comes in a lump when the locomotive is sold. Now comes the act of abstinence, for the greater part of the money must be used to get new materials and to support future labor. The moral brass band thus gets a chance to play, and character is evolved by the supposed restraint on consumption that results. I now regard this picture false. There is a long series of efforts; in the end the locomotive appears and is sold. But the transaction gives no immediate addition to the total consumption goods. These goods come in slowly as the locomotive is used. The long series of efforts is followed by another long series of small addi-

tions to consumption goods. At the moment of the sale there is no need of the moral brass band, because there is nothing added to the amount of consumption goods. Nor is it needed when they come, for there is no harm done to production in using them up.

This brings us to the core of the interest problem. Is interest in this subsequent flow of income due to the use of capital, or is it something paid while the work is going on? The latter I now regard to be the correct view. Interest, I contend, is a reward in future goods paid those who take them in distribution, and not the flow of income that follows their use. The reward is interest: the income is rent. The bookkeeper again confuses us by calling rents interest. The theory that interest is a premium paid to get possession of present goods in distribution does not account for the item the bookkeeper calls *interest*. It accounts only for a much smaller amount of future goods given to those who take them in distribution,—a fund which the bookkeeper does not get on his ledger at all, or [if he does] he carries on another page. Why does he deceive himself and us? He starts with the rents which property yields as income. Then he finds the rate of interest, and by a process of multiplication he estimates the value of this property, which he again enters on his books as so much capital. Now he turns over a page and makes a new entry.

Capital	$10,000,000
Interest	500,000
Rate of interest and marginal productivity, 5 per cent.	

And as he does this he remarks, "How practical theorists are getting to be." And the theorist says, "My views are correct, for they accord with the experience of practical men. See Bookkeeper's Ledger, Column 27."

The confusion arises from the bookkeeper's error in assuming that rents and interest are the same, because he calls all his various items interest and never uses the word rent. He does not, as he supposes, derive the rate of interest from the second column of figures, but it is already assumed as a fact in the first column, from which the second is derived. Rent and interest are not the same: the one is a flow of income, the other is a relation between forms of future goods.

The acceptance of the bookkeeper's error that rent and interest are the same creates, in my opinion, the confusion in the recent discussions of Professors Clark and Böhm-Bawerk. I can follow the reasoning of Professor Clark without difficulty until he comes to the assumption that rent and interest are the same; nor do I find any difficulty with that of Professor Böhm-Bawerk until he arrives at this point. Professor Clark starts with the general theories of productivity, and accounts logically enough for the item on the bookkeeper's ledger called interest. But he slips when he assumes that thereby he has accounted for what the bookkeeper calls a rate of interest—the reasoning in Column 27 is all wrong. Professor Böhm-Bawerk starts from the other end of the problem—the relation of present and future goods —and the reasoning is correct until he assumes that he has accounted for

what the bookkeeper has entered on the ledger as interest. He has, however, not accounted for this item, but for the rate of interest, which is a relation between two kinds of future goods not shown on the bookkeeper's ledger. We need the first part of Professor Clark's reasoning to account for what the bookkeeper has entered as interest, and the first part of Professor Böhm-Bawerk's reasoning to account for what the bookkeeper calls the rate of interest. If we swap horses at the right point we come through in good form, but most of us accept Lincoln's advice not to swap horses while crossing a stream.

The real mistake of the bookkeeper is that he treats genetically what should be treated structurally. He tells us what has happened many times; he enters every item in a dozen places. But he never goes out to compare his history with the economic structures about him. This we must do to avoid his errors. What then are the real structural processes found in the economic activity of each working day? The first that strikes the attention is that each day every product is being changed, but that at the end of the day nothing is different from what it was the day before. Keep the eye on any one product and it is being transformed into something else, but count up what is left on hand at the end of the day and there are present the same goods and in the same relative quantities as on the previous day. The observer sees nothing but change; the bookkeeper finds no change at all. This difference is not hard to account for, if we remember that all functional activity is in the present and that functionally there is no long-time production. The active worker never finds anything that cannot be done in one day. All is work and he simply repeats his day's work one day after the other. The bookkeeper knows nothing of daily activity. He only finds products at the end of the day, and assumes that these products (capital goods) were the real cause of production. Both views are right and both are wrong. The viewpoint of the one is structural and of the other genetic. All genetic facts are bookkeeper's records, while all structural facts are observations. If we go to the bookkeeper we find only money, and future goods estimated in money. The goods stay on his records, but the money goes out at the end of the day to the workers. They buy goods during their period of leisure, and, therefore the money appears again on the records the next morning. Nothing thus appears changed, not even the money. But if we watch the process we find that the workmen as consumers have used their money to buy consumable goods. The money account on the ledger exactly corresponds with the consumption of the workmen. Thus, for money we should put consumable goods, and then we would see that the structural processes have each day created a certain quantity of consumable goods, in addition to the replacement of the future goods which is entered on the bookkeeper's record. How much will this sum of present goods be? It is hard to answer for any individual but a precise general answer can be given. The quantity of consumable goods made each day equals the standard of life of the workers. Normal men will work until this standard is satisfied, and they will work no longer. This

is the first great structural fact, just as the need of a replacement fund is the second. These at first sight seem all; but there is one more structural fact of equal importance. The accounts of the different workmen must be settled daily, and this daily distribution of products is a value problem. The value set on the product of each day's work must be such that each workman is satisfied with what he gets. And this means that consumable goods must have a higher value than future goods. Whoever takes future goods gets more than his share measured in units of work. *The reward for taking future goods is in future goods.* Their lower value permits those who take them to secure an increased quantity. If the total value of future goods is to remain the same, while the individual value of each good is lowered so as to find a purchaser, there must be an increase in the total quantity of future goods. The rate of interest is the proportion of this increase to the previous amount, and the amount of the interest is the total difference as shown on the bookkeeper's ledger. We can know there is a rate of interest without going to the bookkeeper, but the only way to determine what it is, is to compare his records on two days and note the increase. There is thus an additional amount produced in the normal working day. If more is not produced workmen must pay the difference in present goods, and then their standard of life is lowered. A reduction of the standard of life, or a longer working day in which to produce more future goods, are the only alternatives. The workman may choose the latter, and pay interest in work and not in lowered standards. Work is thus the normal source of the increase of capital and not the much-extolled saving which forces a reduction of social standards.

There are thus, from a structural viewpoint, but three activities: work, consumption and valuation. And there are but three ends: the replacement of consumption and capital goods and the creation of an interest fund. All other processes and ends resolve themselves into some form of these. The bookkeeper carries many more items, but they all have their source in the underlying structural activities. In the first place he divides income into two parts. Where labor has been really performed he calls the return wages; where it has been avoided by some economy or by exceptional foresight and ability he calls it rent, and puts it down as the return for the capital goods listed on his ledger. He thus makes income to appear to arise from two sources. In reality, however, he assumes rather than proves this, for he treats rent genetically, and attributes it to its source—capital; while wages are thought of as coming directly from present structural activity. If he treated everything structurally, he would have called all the income wages: if he treated everything genetically, the whole income would be a rent due to past activity. Men either work to-day and get their pay to-morrow, or they work and get their pay on the same day. Either viewpoint is consistent, but a mixture of them creates confusion. The bookkeeper also finds that the demand for wages tends to absorb all income, and at the same time the just claims of capital demand a larger return. He does not stop to consider that structurally labor is the one

permanent agent, while capital is made each day. It is a product found each night, but always disappearing before the next. Genetically considered, however, capital is the one permanent entity. It is always on hand and always growing, while the laborer is hired each morning and paid off at night. From this viewpoint the whole return belongs to the capitalist, just as from the other it belongs to the laborer. There is no conflict so long as a single viewpoint is strictly adhered to. Both of them will explain production. Trouble arises from keeping the books so as to show in one part the origin of products and in another the structural activities that create them. The bookkeeper thus gets two items, when in reality there is but one.

Another of his duplicating items I have already explained. He finds the total rent of production goods and the rate of interest. From them he figures the value of production goods, which he enters on his books in a separate column, as if it were a real entity apart from the causes underlying it. There is, however, a real process back of this work even if there is no entity. The primary valuation of present and future goods, by which the rate of interest is fixed, includes merely the present and future goods made to-day. It does not include the future goods made yesterday and for whose use a rent is paid. Rents are paid in present goods, and the payment of them helps to swell the demand for present goods. It is only the tool or machine made to-day that counts as future goods and whose lower value fixes the rate of interest. But when the rate of interest is fixed, all the goods in use are revalued on the basis of that given to the goods of each kind made that day. The plow made to-day fixes the value of all the plows in use, and the rents received for to-morrow's use will depend on this valuation. The bookkeeper is therefore justified in keeping the item he calls capital on his books, for it represents all the goods in use whose revaluation must be continually made. The real cause of this item is not the contrast between production and consumption goods, but between goods in use and those newly made. The relation of goods in use to consumption goods is indirect. Both are related to the newly-created future goods, but not to each other. The bookkeeper is thus justified in what he does, even if his reasoning about it is faulty. The goods in use to-morrow will yield rents only on the basis of the valuation given them to-day by the current distribution of newly-created values. What the capitalist gets depends on this valuation and not on their real productivity. Of the whole return to-morrow the laborer will give up nothing except for rents estimated in this way. He pays for the use of goods on the basis of his estimate of goods of a similar character he has that day made. Rents are thus fixed by the workman and not by the capitalist who owns the tools and machinery.

In this way many of the items on the bookkeeper's ledger are accounted for and justified. But none of these structural activities account for the increase of capital. All income is rent or wages, and the standard of life presses upward until it has absorbed all current income. It would seem that there might be an accumulation of capital by the piling up of rents, but

the recipients of rent raise their standards as easily and as rapidly as do the laborers; and in any structural equilibrium rents are used up to maintain standards as fully as wages are. The standard of life of each class tends to equal the sum of its rents and wages. Each individual unites himself with that class whose standards will absorb income. There is no structural force tending to increase capital. They all tend to a static equilibrium in which no increase is possible.

To find the source of new capital we must transfer the attention to the genetic viewpoint; for capital comes from genetic changes and not from structural activities. The individual in a static group, as has been said, holds a standard of life which his productive power is just able to satisfy. There is no margin for saving. But when his productive power is increased while his standards remain stationary, he produces more than his normal demands as a consumer, and thus a profit left over with which to increase capital. Standards are social and do not change until all the class has its productive power enlarged. Increased efficiency affects the individual long before his whole class increases theirs, and thus differential profits are not claimed for consumption. Old forms of profits are continually disappearing through the rise of class standards, but in the meantime individuals increase their efficiency and gain new profits. Individual efficiency always runs ahead of social standards and keeps up a flow of new capital into industry. The rate of profits is the rate at which capital is increasing.

This fact is denied. Mill, for example, tells us that profits are partly used up in present consumption, and the amount saved from them is fixed by that mysterious force called the effective desire to accumulate. Along with the other followers of Adam Smith, he assumes that profits are present goods and could be consumed if the holder so chose. Here is another case of the bookkeeper's error. Accounts are kept in money, and profits, like everything else, is entered as money. It seems, therefore, that all the holder has to do is to take this money and buy consumable goods. But this is not possible: for all profits are in future goods, from which rents may be derived in the future, but from which to-day no income is possible. This is shown by looking at the bookkeeper's accounts in another way. The money on the books represents either real money or future goods. If the quantity of real money has not changed, all additions to the total amount carried on the books must represent future goods. If this is true, the holder of profits may exchange them for present goods if some one receiving rents is willing to part with them. Such an exchange, however, depends on the willingness of the recipient of rents. It is not, as Mill assumes, merely a matter of the will of the holder of profits. And even if the exchange is made—of profits for rents—the whole sum of rents is not increased. The limit to present consumption is definite and the whole community cannot override it. Profits must remain future goods until, when put to use, they increase rents. They are thus a source of future but not of present income.

There is, however, a way of increasing present income that must not be overlooked. Profits cannot be consumed, but the goods they represent may be put in the place of the older capital that is gradually being used up. There is no structural demand for a replacement fund if there is new capital to put in the place of the old, and the labor used to replace old forms of capital can be employed in creating present goods. The increased efficiency that yields profits thus permits the shifting of more labor to the production of present goods. Incomes thus go up at the expense of old forms of capital. Profits cannot be transformed into income, but the owner of capital in use may change a perpetual income into a much larger short term annuity. This is the only case where will power affects production, and any period of prosperity abundantly testifies that it is often exercised to the final detriment of those concerned.

This rate of profit and the rate of interest are normally the same. The fund of future goods set aside in the daily distribution should, when added up, be the same fund that the bookeeper finds when he takes stock at the end of a period. In a dynamic society it is the man who makes profits who takes future goods in the daily distribution. He is the only one whose standard of life is below his earnings, and who can take future goods without lowering his standards. Structurally considered, this gain is interest, yet from a genetic viewpoint it is profit. While thus the same normally, they are quite different in a dynamic society, where the increase of productive power is rapid. Profits represent the efficiency of the capital in use, and if the rate of increase of capital is greater than the true interest rate, the rate of profits is substituted for the rate of interest in the valuation of capital. The difference is this: when valuations are fixed by the rate of profits, capital values go up as profits go up; while if they are fixed by the true interest rate, they go down in value as the interest rate goes up. The so-called market rate of interest which the bookkeeper uses to fix values is sometimes the rate of profits and sometimes the true rate of interest. The market rate is always the larger rate, which in times of prosperity, is the rate of profits and in times of depression is the rate of interest. When the rate of profits is dominant, the receiver of profits puts his extra money in banks. The bankers, finding their deposits increasing, lower the market rate of interest to induce their customers to use it. A high rate of profit thus ends in a low market rate of interest. This low market rate does not mean, as economists assume, that a new group of persons are being called on to save. It really means just the opposite. People who have been setting aside a replacement fund to keep up their capital no longer do so, and the funds the banker offers at so low a rate are really new capital put in the place of old capital through the neglect of a proper replacement fund. A low market rate therefore means the destruction, not the creation, of capital. It means a pressure of consumers for more present goods, which pressure is ineffective except as it causes a neglect of a proper replacement fund. The capitalist can cease replacing old forms of capital, and the laborer can also demand a shorter working day, with nothing to prevent them so

long as the rate of profits is above the true interest rate. As a consequence, valuations go up rapidly, with the resulting phenomena of periods of inflation. When, however, the rate of profit falls below the true interest rate, we have that sudden shock called a panic. The rising rate of interest, due to the lack of a proper replacement fund and to an abnormally short working day, suddenly destroys the values created by a high rate of profits. The motives of a primitive society again assert themselves. Capitalists must replace the capital they have neglected, and laborers must again work long enough to create a true interest fund. There is no saving while profits are higher than the rate of interest; there must be saving when it is lower. The doctrine of Adam Smith that saving is the source of capital is, then, not a general truth. It is only true when there are no profits, or when its rate of increase is less than that of interest. Productivity controls the market rate when profits are higher than interest, while the true rate of interest fixes the market rate when profits are the lower of the two. There is thus no general law that fixes the market rate of interest. There is one law for periods of prosperity and another for those of depression.

From this analysis it becomes apparent that the growth of capital is not conditioned by the growth of qualities in a special class of men. The makers of capital are the more efficient workers in a new capacity. The real conflict, if any, is between the more and the less efficient, and here the less efficient are not a group cultivating special powers which tend to survive; they are merely those who lag behind, or are fixed in old ideas and habits. Break up the old static equilibrium and the forward movement will be general and the diffusion of income complete. Conflict is a static phenomenon appearing in each new epoch, but driven out or weakened by the changes that progress creates. The efficient man constantly gains and draws more of the laggards into his class. Harmony results and conflict ceases: for the play of economic forces grinds to powder the old social classes with their conflicting interests, and builds up a single type with a greater productive power and a higher standard of life. In a truly economic world there is no marginal man. Every man will be his neighbor's superior in that he does more for others than he expects in return.

In the spirit of the young man in the parable, the workman can rightly ask: "What lack I? Why do I live on the perilous margin of want when nature is bountiful and generous? Why have I not come into the estate of which prophets dreamed and for which statesmen have labored?" The answer has filled many a volume and differs with each age and person who answers it. Mandeville thought that workmen needed to be coupled with spendthrifts to use up what industry created. Our authors, in the illustration that has been quoted, see the need of a separate class to save what the workmen make. Others attribute it to dissipation, to shiftlessness, and the lack of other qualities ranking high in the popular esteem. The real reply is simpler: for men fail to realize the depressing effects of class and race conflicts. There is no place for conflict in the economic world, nor for

its twin evil, class superiority. There is but one economic man and one group of economic forces. Those who make for efficiency make also for the improvement of all other ennobling qualities. The economic mandate is for efficiency, generosity and love; and the greatest of these is love, for without love, efficiency and generosity never have a fair chance. A restatement of an old truth also expresses this thought: "Love your work with all your heart and your neighbor as yourself." This is the sole basis of prosperity and justice. Such a workman will still need God, but he will not need a superior class to give him work, to shape his life and to save him from degeneration.

THE MAKING OF ECONOMIC LITERATURE[1]

IT is difficult to realize the change that has been wrought by economists since this association was founded. So popular has economic thinking become, so prominent is its position in all colleges and universities, so numerous are the books, articles and journals devoted to its discussion, that it seems a natural state of affairs that must always have existed. And yet all this is the work of a group of enthusiasts, meeting at Saratoga 23 years ago without a single book to their credit, without a journal to voice their views and without university position to give them support. To-day economics is in every one's thought and on every one's lips. We do not lack students; we do not lack organs or audience; nor do we lack zeal for the further prosecution of the work already begun. So much we can fairly claim and all honor to those who have taken part in the work. If this were our only goal we might be proudly satisfied with our record and pass on the Association to our successors with a consciousness of a life's work well done.

There is, however, no great American problem that has been solved. With every vital question we stand on a half-way ground, halting between the old and the new, and if these half truths are all we have to offer we may harm the public more than we aid them. Confusion and defeat stare us in the face politically, morally and economically, if the disappearance of old customs, traditions and modes of thought is not followed by the rise of new concepts, ideas and institutions. We cannot afford to be mere iconoclasts. We must lay the foundation of a new civilization and show how economic forces will remedy evils that may soon be unbearable. We have thus a problem—a difficult problem to master. Are we mastering it or merely drifting with the tide?

If it is hard to divide the centuries into epochs it is still more difficult to distinguish between parts of a period of twenty years and yet there is enough difference between the first and second halves of this period to give them a distinct character. The best method of illustrating this difference is to examine the change in our periodical literature. Twenty years ago the dominant element was thought and theory, while at present description and illustration have the first place. The theoretic discussions we now have are by persons who earned their reputations in the first epoch. The younger generation of economists have evidently been turned in other directions. The same tendencies are manifest in doctors' theses. I recall

[1] Presidential Address delivered before the annual meeting of the American Economic Association in Atlantic City, December 28, 1908. Printed in *The Economic Bulletin*, Vol. I, pp. 290–300. *Publications of the American Economic Association.*

many young men who gained standing by an essay of not more than thirty pages. They won recognition by clear thought and a sharply defined thesis. To-day they launch forth in a three hundred page pamphlet that tires the reader with its massive collection of facts; and the making of books is going the same road. No one seems willing to stop short of the German standard by which prestige is gained through bulky volumes that fill yards of library shelves.

The young doctor with a three hundred page pamphlet to his credit has worked harder than his predecessor but he has pushed forward neither the science nor the nation. The writers in journals state the current problems of the economic world with great clearness but they leave us muddled as to their solutions. And book-making has become an art of collection and restatement that substitutes clippings and card catalogues for clear thought. Once when I complained to a fellow writer of the difficulties of book-making, he volunteered to show me his method, which was to employ a clipping bureau to send him extracts from papers and periodicals falling under each of the heads of his book. When he wrote a chapter he read over these clippings and thus the book came into being almost of itself. Another writer took a short-hand reporter with him when he interviewed people familiar with a selected topic and from this material created an acceptable book. A more familiar illustration is that of college debaters. A series of questions is a drag-net that will bring in the best of the current thought and the questioner can be reasonably sure to get what he wants with little work on his part.

There are writers whose work deserves commendation and yet the art of popularizing is so prominent that the fuller view of the earlier epoch is lost sight of in the struggle for immediate results. A theoretic writer can no longer gain through his work the commanding place that would have been given him even a dozen years ago. Not only has he in this way lost prestige but his work is more impersonal than it was, so much more so in fact, that he scarcely ever derives personal advantage from it. The popular speaker and writer are quoted everywhere and thus gain a name on which position and income depend. The theorist however finds few readers and his contrasts when fresh and striking are appropriated by popular writers without credit. A man who worked for years on an important topic finally brought out a book that set off his thought by a brilliant contrast that really contained its essence. When this was first used by an editorial writer he gave full credit. Soon editorials by the score appeared in other papers which gave the new thought and expounded it by means of the new contrast, but no credit was given to its author. These writers had apparently read the first editorial but not the book and cared more for making an impression than for justice.

In one way the author should be greatly pleased, since the end for which he worked was so easily attained. But in so far as a personal element was a motive he gained less than if he had been the author of one of the editorials based on his book. Books now drop out of sight in a few months;

often they are dead before the reviews of them begin to appear. But their contrasts and telling phrases live on and are pushed over into the popular consciousness in a thousand indirect ways that make them effective and often as immortal as they are impersonal. To-day the popularizer is so close on the track of the thinker that his book is made a part of literature before it is dry from the press. To think clearly is to be altruistic. Honors and rewards come only to those who by pen or speech pass along to the public the books and essays it will not read. And the professor, like the writer and speaker, gets his promotions by what he appropriates. Economists are not free from tendencies that dominate elsewhere. And hence it is that each year we pay less attention to clear thought and more to its expression.

Such considerations warn us of the difficulties economists must meet and also give the clue as to the line of real progress. An economist cannot hope to succeed either in gaining personal renown or in influencing the public by book-making or essay writing; the only part of his work that lives on is his charts, diagrams and contrasts. To say this is probably to shock and possibly to give offense. Most of us have an ambition to write some day a ponderous volume, and if we lack confidence in our ability to do this we at least hope some of our contemporaries will do it for us. "Oh for an Adam Smith or a John Stuart Mill to do for our age what they did for their own." We all feel this and long for its realization, and yet those who try fail, not from lack of ability, but because they are trying an impossible task and are moved by a false ideal. The first volume of such a treatise has occasionally been written but the repeated postponement of the completing parts reveal obstacles that even the ablest men are unable to surmount. The trouble is that the author exhausts his contrasts, diagrams and charts in his first volume and has nothing left for subsequent volumes except hazy generalizations, dull descriptions and utopian dreams. In contrast to this ideal of bulky volumes and complete discussion I hold that the better the economist the clearer, shorter and more precise are his utterances. The essence of economic literature lies in its contrasts. A book is merely the trail along which its author has gone in his search for clear expression and sharp analysis. This is of great importance to the author but of little consequence to the reader. In no place can this be more clearly seen than in the *Wealth of Nations*. Who would go to Adam Smith for his material? And yet there are hundreds of pages of it badly arranged and poorly presented. The book would have gone to the trash pile as soon as printed if this were all there was in it. The real gems in the book are its fresh contrasts. The very possibility of a scientific political economy depended on the contrast of sympathy with self-interest and the form that the economics of the next century was to take was fixed by the contrast of land, labor and capital in production and of rent, interest and wages in distribution. From these contrasts no one has broken but they all might have been stated on a single page or put in telling diagram. The five hundred pages of reading matter which it took Smith ten years to collect and to write is

of value to the student of his development but is of no consequence to those who after him take up the task of creating economic literature. Malthus and Ricardo were likewise successful in their contrasts but failed in their attempts at book-making. The successful writers of to-day show this fact even more tellingly. What could have been more important and effective than the contrast between present and future goods and where is there more of a failure than the book in which this gem is imbedded? And if one may without offense pass a judgment on our greatest living economist I will say that I have pitied him for the pressure of false ideals which made him spend years to write a volume of many hundred pages to express contrasts that could have been more forcefully put in a twenty page pamphlet. No one can write a four hundred page book that will stand. Telling contrasts get an immortality that is denied books and the more concise the expression the longer the life and the greater the influence. The phrase "Economic Interpretation of History" is worth more than all the books that seek to expound it. The force of socialism lies in three phrases "Class Struggle," "Exploitation" and "Surplus Value." No one who has mastered these concepts need study Marx's diffuse and obscure argumentation. Giddings' *Sociology* may be divided into two parts, the book and the phrase "Consciousness of Kind"; and the phrase will outlive the book. Our concept of the problems of population has been radically altered by the phrase "Race Suicide." Many volumes as erudite as Malthus's *Principle of Population* could not have had the influence it has had nor thrown so much light on the problems and tendencies of our age. So, too, *The Abolition of Poverty* gives us a thought that volumes of description could not express, for with one stroke it separates poverty from the moral background with which it has been associated and shows it to be an evil for which society is responsible. Poverty is changed from individual depravity to mal-adjustment and with this new viewpoint a world is opened up for enthusiasm and sympathy to conquer. Hobbes' "State of War" Rousseau's "Natural Man," Ricardo's "Cost Prices." Spencer's "Survival of the Fittest" are vivid illustrations of the fact that phrases are more important than volumes and have an immortality that no scientific book can gain. Only when we recognize this principle can we see the tremendous waste of time and energy that book-making has imposed on the scientific world. No group of scientists has suffered more from this error than the economists. We have had the misfortune of having our origin in the undifferentiated field from which has also come the moralist, the political scientist and the historian. As our traditions come from them they give to our literature a form not fitting to its content. The moralist and political scientist naturally cultivate fluency because their contact with the public is mainly through spoken words. The historian cultivates elegance and can hardly get started before the third volume: and the sociologist is quite as bad a model because he starts with Adam and seldom gets beyond Moses.

In such company the economist seems to be a hybrid product of book worms and hair splitters. In contrast with them his instincts should be those

of a bookkeeper and a cartoonist. He should be orderly, not fluent; clear and concise, not diffuse or ornate. He should cultivate visual expression by using charts and diagrams and arouse the imagination by striking phrases and vivid contrasts. His vehicle should be the newspaper and the magazine, not the scientific journal. The public wants what we have and if we have something it does not want it is not worth having. To be scientific is to be popular. There is no renown worth having but that of the newspaper and the magazine and the class room. To fail of appreciation in these quarters is a confession of defects that prove a man's unfitness. A student should go from us to fields less closely attached to the present where other tests than the power of expression suffice to give men standing and repute. There can be no economic literature apart from general literature. We give the content to which others give the form. To separate ourselves from the general literary movements of the age is to deprive ourselves of influence and literature of a content. Other writers must be our spokesmen; we must be their guide and inspiration. The place of the economist is on the firing line of civilization; his product must be clear, concise and impersonal, instead of being submerged in bulky volumes and formal treatises. Our real affinity is with the journalist, the magazine writer and the dramatist and not with writers, who, separated by time and space from what they describe, function as critics of persons and events instead of being actors in the momentous struggles of the present.

I remember the satisfaction I once had when a fellow economist said "the library is our laboratory." I then thought that our sources are the accumulated records of past epochs and that what the past tells about the present is of more value than what the present tells of itself. If, however, the current economic events are of more importance than the defective records of the past piled on library shelves an economist has no business to be in a library nor to send his students there except as it contains and classifies current literature. He has less use for a card catalogue of musty books than for one of events, editorials and articles of the passing year. We need fresh observations, not fine arguments; we need clear contrasts not the accumulation, arrangement and restatement of antiquated, obsolete data. No fact is valuable to the economist unless it is also valuable to the journalist who summarizes events, the editor who comments on them and the reformer who uses them. No argument is good in a book or in a classroom unless it would convince the million readers of a daily paper and could find place in the campaign book of a political party. The book goes nowhere unless it goes to the reader of papers and magazines. Thought is no longer in isolated compartments affecting only particular persons or classes. Its waves are like effects of a pebble thrown into the ocean. If it moves the particles it hits, it moves every other particle no matter how distant. If we move our students we move the world. If we fail to move the world we deceive ourselves if we think our students have been moved by the specialized knowledge we hurl at them. There is but one real world and whoever would exert an influence must be in it. Let

the historian, the sociologist and the student of literature have the library and all the gems they rescue from its dark corners. Economists should work in the open and get their inspiration from the struggle and evolution which passing events reveal; for where change is there should also the economist be.

So long as economic scholarship is associated with library research we may expect theses to continue as a test of economic proficiency. Second-hand data and antiquated material thus get a place they do not deserve. The student is turned away from real life and often acquires a prejudice against it. A three hundred page thesis not only does not fit a man to be an economist: it really incapacitates him for work. The failure of young teachers is mainly due to the overspecialization that thesis writing invites. It takes years of hard knocks to realize that the facts of theses and books are not good material for the classroom. Library economics is a vice that hampers the growth of the science more than the hair splitting logic of would-be reformers. We must some time learn that real investigations cannot be carried on in libraries no matter how complete they may be. We must also learn that individual investigators no matter how well directed seldom add new facts to our fund of knowledge. The range of social investigations is so great that only large institutions like the Bureau of Municipal Research, the Russell Sage Foundation, or the national government can really do effective work. Under these conditions a thesis is a waste of time and a misapplication of energy. It merely adds a new statement of old facts to a market already overstocked. The young economist should be drilled in effective presentation, not in fact accumulation. His home should be not in the library but in the classroom and when sufficiently proficient to investigate, he should be loaned by the university to the government, to local committees or to institutions capable of handling social problems on a scale that commands success. The university should furnish investigators but should not become a mill for turning out small scale investigations that excite ridicule instead of respect. If it encourages book-making innumerable volumes appear that merely rearrange old material and give a personal touch to old arguments and viewpoints. Give men two dollars a page for writing articles and a journal will have the same facts presented different ways in each of its volumes. We want, however, net results, not the gross product. Measured in this way our books and journals make a pitiable showing. And this will continue as long as universities encourage book-making and economic journals pay for articles and reviews. If these props to misspent efforts were removed the number of books, articles and reviews would be reduced to their normal proportion.

A scientific writer should have no other reward than what comes from a love of work. The test of his growth in thought is the reduction of the space he uses to present it. It is hard to tell which is the worse evil: to have a scientific writer expand an essay into a huge book or for a popular writer to collect his essays and articles into a similar volume in the hope of passing them off as a scientific product. Both evils confuse and annoy

and can be removed only by concerted action following a clearer recognition of the function of economic literature in modern life.

A publisher to whom I offered a book said that it would give me a reputation but there would be no sales. I have pondered on that remark many times. Is the reputation that comes from a book having no sale a real reputation? And is not—and this question I ask in all seriousness and with much hesitation—is not a reputation that you or I acquire through books published by our universities or the periodicals they support a fake reputation—that it is not honorable for us to have? If there were no real world and no large audience seeking increased light on current problems we might be justified in accepting such support and pride ourselves in the luster it gives. But when real tests of success are at hand false ideals prevent the application of tests that would sift the chaff from the wheat. For Jones to write for Smith and Smith for Jones—or for both of them to write large books to enable them to pose before college presidents, Boards of Trustees and admiring groups of friends makes a farce of economics and prevents its advance. So long as we are useless pampered creations of false university ideals our books and pamphlets are of no more consequence than we are when wearing caps and gowns in a university parade. A bit of color, an impressive picture perhaps for parents and friends to look at when they come to see their sons graduate, but something soon to be forgotten except as a part of a pleasing memory.

In reality our books are of less consequence than caps and gowns, and I doubt not that universities would profit if they used the money now spent in printing useless books and journals in giving more color and grace to public anniversaries. So few of the public go to libraries or read reviews of pompous volumes, that self-advertisement in these ways must bring a meager return. And why should false investment of time and energy be demanded when a real public is at hand craving for information and inspiration. Surely economists have little reason to accept false standards when real tests are so plainly visible. Ten articles written for special journals should not give the reputation that comes from having one accepted by any reputable magazine that makes effective presentation a test of acceptance.

To outline a program for the reform of economic studies is too large a task for a presidential address, yet some of its principles are so evident that the address would lose point without them. We have consciously tried to create graduate schools of economics and have failed, yet our work has in an unplanned, blundering way passed over into the undergraduate world and succeeded. The reason for this is that with undergraduates we have been forced to cultivate clearness of thought and have thus found a fitting field for our activities. Reform in the graduate schools means a like transformation. They must be changed from schools of acquisition to schools of expression. The ideal graduate school is a school of journalism just as the ideal undergraduate school is one fitting men for business. We will never make a graduate school of business, try as we may, but we can create a school of economic expression that trains men for teaching,

magazine writing and journalism. A good debater is a better economist than a writer of theses; and to have won an intercollegiate debate should count more than library work. Every economist should seek for journalistic experience and have his standing measured by his success. No economist is an economist until he has said to himself, "I wish I were an editor."

If this be true, the complement for graduate economics is not history, politics and sociology but literature and law. We should be grouped with other social sciences when teaching undergraduates but we should sharply isolate ourselves from them in graduate work. Our fundamental needs are for the power of expression and the spirit of legality. Economists are by education and tradition revolutionists. The Lord made the world in seven days; we want to remake it in one. So we join hands with anarchists, socialists and other advocates of violent change and cry ourselves hoarse in advancing their measures. Economics is like a South American republic; no one is satisfied unless there is a revolution once a decade. Law, however, is the one social science that has advanced solely by evolution and we have much to gain by acquiring its spirit. And law would gain equally by an alliance with us; for the socializing of law is the most important and pressing need of the American people. Legal encrustments of social traditions are the worst foe of progress. Law can be made mobile only by the proper appreciation of economic change; economics can be saved from a series of revolutions only by the spirit of law. When these two sciences are properly blended evolution will be constant and progress orderly.

Comrades, are you satisfied? Do you point with pride to what you have done or do you look ahead for new fields to enter? We can all, it is true, report an increase of students, more enthusiasm, better results. But are these worthy objects, the goal of economics? To me only two ends seem prominent enough to deserve approbation: the redemption of the college and the control of public opinion. The one end we can attain through the superiority of our class instruction; the other we can acquire indirectly by giving clearer ideals and better programs to those who direct public affairs. We now have the place in education that Greek formerly had and upon us therefore depend the perpetuation of the college and the ennobling of its aims. We must socialize it by making sympathy, coöperation and generosity its dominant ideals. What we do for the college our allies can do for the nation. First the economist, then the journalist and finally the legislator; this is the order of progress and the key to success. The world is ours if we enter it by the right door.

THE POLITICAL SIGNIFICANCE OF RECFNT ECONOMIC THEORIES [1]

AN American economics is a new creation, so new, in fact, that we scarcely realize its existence. I say this not because there is in the best of American work a break with the traditions of European schools, but because the underlying premises of economic thought are brought in America into clearer light and thus both their defects and strength become visible. Progress can be made by radical breaks with the past; it can also be made by bringing into sharper contrast ideas and premises which in the earlier thought were blended into a seemingly harmonious whole, but which, after all, represented opposing modes of thought. Economists can create systems, but it is only the trend of events that decides between them. Each generation compromises oppositions or holds tenaciously to opposing systems so long as there is nothing in environing conditions that forces the isolation of two differing but temporarily harmonized principles. The recent changes in economics have been of this kind.

American conditions have developed latent oppositions that by earlier writers were smoothed over because nothing vital turned on them. The progress in American economics has set aside these compromises and built a more logical scheme of thought on fewer premises better interpreted and more logically stated. There are thus two diverging schools arising from a different emphasis of elementary principles, each with a body of theory and a program of action. Their contrasts would be of little moment if there were not also a steady shifting of public interest in directions that make the differences in economic theories correspond to differences in public policies advocated by publicists and statesmen. The road of the economist becomes the road of the people and the differences of economists are settled, not by their logic, but by the success or failure of the policy which each theory calls for.

It is in this spirit that I approach the problem of distribution which I shall try so to restate as to show its bearings on public questions. To do this calls for a bit of history, for the two theories now contending for supremacy are stated by Adam Smith and expounded by later writers. They were compromised, however, both by Smith and his followers, so that economics seems at once on both sides of what is in reality a fundamental contrast. It is to the credit of American economists that this compromise is broken down. Much of this work has been done by Professor Clark, who has taken one element of economic thought and expanded it into a system the

[1] Reprinted from *The Annals of the American Academy of Political and Social Science*, Vol. XXXII, pp. 82-94, July, 1908.

merit of which is superior to any that has preceded it. His premises are clear, his thought is logical and his conclusions as to public policy are equally definite. His theory of distribution is called a productivity theory, because he assumes that each share in distribution is fixed by its contribution to the production of income. What a capitalist gets, what a laborer gets or what a landlord gets depends on the productivity of each of these factors in distribution. All income is related to its service in production and its distribution is but a corollary to the laws of production. There is thus a natural justice, giving to each his share and preventing any one else from despoiling him of his just reward. This natural reward is the cost price needed to evoke the effort of production. Professor Clark thinks prices tend to this cost level, and when they do reach it the return of each producer is on a just basis.

It is plain that so simple an analysis of industrial conditions has elements of great popularity. It appeals to long-standing sentiments and to many popular instincts. But before accepting it we should see what can be said by those who oppose it and why an increasing number of economists find its premises and conclusions unsatisfactory. To do this we must contrast the productivity theory of distribution with a price theory which assumes that distribution is effected solely by price movements. In this way the elements in price become the factors in distribution instead of the agents in production, as Professor Clark assumes. Each share in distribution grows or falls off as it becomes a larger or smaller element in the price of commodities. Changes in price levels result not in a general loss or gain to all producers, but in a loss to some and a gain to others. If seven pounds of steel have been exchanged for a bushel of wheat and the ratio is so changed that six pounds of steel will buy a bushel of wheat, all farmers lose and steel makers gain; while when eight pounds of steel must be given for a bushel of wheat, steel makers lose and farmers gain. If this be true, there is no general fall of prices following improvements in production. The gains in production constantly remain as price elements and are distributed by price changes. Values are thus put at a higher level than costs by improvements lowering the expenses of production. The difference between total values and total costs is the social surplus for which each group of producers contends. The successful in this endeavor become monopolists and get a larger share than do their less successful competitors. Monopoly is thus a natural phenomenon due to the growth of the social surplus. Its form may be changed, but it is always present and is of ever increasing importance as the productive power of men grows and their surplus is augmented.

Out of this fact arises the dilemma of modern economic thought. We instinctively feel that we ought to have a surplus over the cost of work and we also instinctively feel that others ought to work for cost prices. When we become producers we ask, "What will be the gain in this or that act of production?" thereby admitting that values are higher than costs and that each man's motive in production is the acquisition of some part

of the surplus. Every one would admit this and see nothing wrong in it, but when these same acts are passed in review as parts of public policy a standard of cost of production is set up and the claim is made that cost prices are just prices. Either we are wrong as individuals to demand a gain in each act of production or we are wrong in asking that other people work for cost.

We remove this difficulty when we assume that the share of each claimant is fixed by the relative increase of his products. Years ago I stated the resulting theory of distribution as follows:

"Of the factors necessary for production, that factor which tends to increase at the slowest rate will reduce the shares of the other factors to their lowest limits, will have the benefit of all improvements and must bear all permanent burdens."

This law is merely a corollary of the law of supply and demand. Given different rates of increase of products some must go down in price until their lowest limit is reached, while others will rise until all the free surplus is absorbed. Falling prices are due to consumers' choices, and the more nearly complete this power of choice the more must competing producers lower their prices to get a market for their goods. High prices persist where no substitutes are at hand; low prices prevail where consumers' wants can be supplied in many ways. The slowly increasing factors in distribution are therefore in the fields where the power of substitution is poorly developed, while rapidly increasing factors correspond to the fields where the power of substitution is so nearly complete that low prices dominate. Factors in distribution thus fall into two classes: growing factors where the power of substitution fails, and the limited or losing factors where this power prevails.

It should be remembered that by a growing factor is meant one that is becoming a larger element in the price of commodities. In a progressive society all factors probably get more if we measure their total receipts, but many of them may be at the same time a smaller element in price and thus have a reduced relative share even when the amount of their share is greater than before. The rent of a city lot, for example, may rise from $1,000 to $5,000 a year, and yet if ten times the amount of goods is produced on the lot this rent will be a smaller part of the price of each article produced. Rent may thus be a smaller part of the total value of goods, although its total amount is greater. By growing shares are meant only those which grow both in amount and in relative importance. These growing factors are at the same time the most slowly increasing factors, for the less the rate of increase of the product is, the more rapid is the growth of the share as an element in price. They gain what the power of substitution takes from other factors who have definite claims that must be allowed, but who cannot expand them so as to get a share in the social surplus created by improvement. Growing shares are thus residual claimants who absorb all the benefits of progress.

There are thus a number of limited claims due to the fact that certain

shares are subject to definite laws and there is a residual claimant that gets what is left because other factors fail to secure it. There are also factors whose shares are falling because the power of substitution is cutting down the price at which their products are sold; and there is a growing factor which gains what the pressure of competition takes from its rivals. With the aid of these contrasts the place of the various factors in distribution becomes evident. The residual claimant is monopoly, the growing share is wages, while the shares that are limited and tending to fall in amount as society progresses are rent, profits, interest and risk. Where the power of substitution acts against the growth of a share the only problem is: What resists a fall in prices which if effected would wipe out the share? Definite laws of rent, profits and interest have been formulated which show what the lower limits of each share is. None of these limited shares can claim a larger amount of the gross product of industry than it now receives, and against them the power of substitution will act with increasing force. These shares can therefore be said to fall off with progress and in an ideal state of society to disappear, if we assume that in such a society the power of substitution is complete and the environmental conditions of men are improved to their maximum.

The growing shares as we find them to-day are plainly monopoly and wages. There is, however, this difference between them: Wages at any one moment is fixed like the other limited shares. It is not, as President Walker taught, a residual claimant. And yet it is a growing claimant which secures in the end what the other shares lose. The more productive land is, the lower will be rent; the greater the ingenuity of inventors and industrial managers, the less enduring will be their reward, and the larger the productive power of capital the less will be the rate of interest. This is because the power of substitution cuts down the return of all effective agents except labor. Through the increase of their mobility the laborers substitute better opportunities of labor for the poorer ones they formerly utilized; they go from poorer land to the better land, from worn-out regions to those with increasing fertility, from mechanical occupations to those demanding skill and efficiency. They thus move from the margin of production that yields small returns to points of higher productivity, and by wiping out the old margin set a new standard for wages and force the public to pay them. The increase of wages is measured by the laborers' mobility, and wages will be a growing share in distribution so long as this agent is active in forcing new adjustments of population and in creating a wider spread of the knowledge that makes production efficient.

The laborers' advantage, however, does not end here. Another potent force in raising wages is the socialization of the laborers taking place in every industrial group. The differentiation of industry throws into the various industrial groups men of similar character, education and ability. Like qualities and common interests create group feeling and generate a consciousness of kind which makes socialization possible. Groups thus formed, ceasing to act as individuals, must be dealt with as units. They

will not compete with one another for places, nor undersell each other on the market. We have thousands of industrial groups of various kinds—high and low—so fully socialized that their joint action limits individual competition and gives a monopoly power to their members. This socializing tendency is not a disappearing force, but one that is growing so rapidly that it will soon be a dominant element in industry. When this time comes, or to the degree that it comes, the influence of marginal production on prices will cease. The competition that lowers prices is that of individuals within industrial groups. Marginal production assumes individual action on the part of each producer and individual interests that stand opposed to other producers. Should this competition cease the marginal man will no longer fix prices. Each group of producers will offer its joint product as before and the law of substitution will fix its value; but there will be no test of individual productivity by which the price of labor can be forced down. The growth of wages would be limited only by the productivity of industry.

Keeping in mind the increasing mobility of laborers and the growing socialization of industrial groups, it is evident that wages will steadily rise and that a rising standard of life will permanently keep intact the gains of each generation. Wants grow faster than productive power, creating an irresistible pressure that no other force can withstand. The power of monopoly, on the contrary, is temporary; each particular monopoly gains the ascendency at the expense of some other monopoly. The losses from new monopolies never fall on the public,—they are borne by those who have lost the old powers that gave them a monopoly force. Monopoly temporarily increases with every improvement in production, but these gains soon fall away unless they are reinforced by those coming from the new improvements of industrial processes. Rapid progress means much monopoly; slow progress means its decay, and static conditions would lead to its disappearance. That industrial monopoly is more frequent and powerful than a century ago is the cost of rapid progress. Monopoly is the index of change and a sign of an increasing social surplus. It means no perversion of industrial forces, and is as natural a result as are any of the other phenomena of distribution.

Such is in outline the price theory of distribution with its corollary that industrial monopoly is a natural result of price movements. Is it correct, or is Professor Clark right in asserting that monopoly is "a general perverter of the industrial system"? The answer to this question constitutes the essential difference between the two theories of distribution that I have presented. Both theories also have definite consequences which have been clearly stated in recent discussions. Professor Clark's *Essentials of Economic Theory* gives a clear program that logically follows the acceptance of the productivity theory and its corollary that costs prices are just prices. In my *New Basis of Civilization* I have outlined a program that seems to follow just as logically from the acceptance of the price theory of distribution.

The essence of Professor Clark's position is the belief that cost prices are just prices. Producers should get a fair return on their capital and no more. This doctrine is the basis of economic theories so well established that it has become the popular consciousness. The difference in Professor Clark's view and that of earlier writers consists in the fact that he regards monopoly as an evil so powerful that if not destroyed the régime of natural prices will cease. Earlier writers believed that economic motives active in individuals would suffice to keep prices on a cost basis. He demands a regulation of monopolies. "It is perfectly safe to assert," he tells us, "that only by new and untried modes of asserting the sovereignty of the state can industry hereafter be in any sense natural, rewarding labor as it should, insuring progress, and holding before the eyes of all classes the prospect of a bright and assured future." [1] "Monopoly is not a mere bit of friction which interferes with the perfect working of economic laws. It is a definite perversion of the laws themselves. It is one thing to obstruct a force and another to supplant it and introduce a different one; and this is what monopoly would do. We have inquired whether it is necessary to let monopoly have its way, and have been able to answer the question with a decided *No*. It grows up in consequence of certain practices which an efficient government can stop." [2]

No one who accepts Professor Clark's principles can dissent from his conclusion. Monopoly will not disappear by any force that individuals can put into action. If the tendency of prices to rise above the cost level is wrong, he is a bad citizen who benefits by the higher range of prices. The control of prices thus becomes the first duty of the state, to which its older function of securing justice and fair dealings becomes subordinate. In these views Professor Clark does not stand alone. He represents the great mass of American citizens whose spokesman is President Roosevelt. For the ideas of our President no better background can be found than the economic doctrines of Professor Clark, who has developed the side of economics on which popular beliefs rest into a simple, forceful system which gives a program for action demanded by the feelings and interests of the people. The public is fully convinced that just prices are cost prices and that government should increase its functions and become a regulator of prices.

The public, Professor Clark and the President are also agreed as to the fields where the cost prices are to be introduced. Railroad rates and the tariff are to be modified so that the cost of production shall fix prices. This means a physical valuation of railroads and a similar estimate of the costs which manufacturers must undergo in the United States. There seems to be a ready means of doing this by setting aside the watered stocks of railroads and the lowering of the tariff to a point where monopoly advantage ceases. But the lines between these fields are not so sharp as the President and Professor Clark suppose. Watered stock is a definite sum

[1] *Essentials of Economics*, p. 379.
[2] *Ibid.*, p. 559.

and in a single field, but watered costs is a general phenomenon. Every one thinks he earns what he gets, but he keeps his accounts in such a way that he exaggerates his costs until they seem equal to his income. As he views it, he has no unearned income similar to the watered stocks of railroads or the high prices of protected industries. But were the principle of physical valuation introduced and the functions of government so extended that it became the controller of prices, his costs would not be estimated by himself, but by others who would have the same interest in reducing them that he now has to do this for the railroads and protected industries. And we are not without those who demand an extension of the doctrine of physical valuation beyond the point set by Professor Clark and the President. The single tax doctrine applied to land has the same thought as has the physical valuation of railroads. The farmer thinks that land values depend on real costs, and the city land speculator has the same opinion as to town lots; but a public valuation of this property would cause the watered costs of the farms and city property to shrink to a lower point than would the values of railroads.

Professor Clark has a skilful way of hiding land values by subserving them under the general concept of capital, but if the doctrine of physical valuation is once introduced the public will soon be educated to the evils of watered land values, and the same demand will arise for its physical valuation. If the doctrine is correct and the fixing of prices is a duty of the state, the principle will gradually have its application extended until every kind of property is brought under governmental regulation, and no watering of stock or of costs will be allowed.

At present there are four classes of property that gain a relatively large share of the benefits of improvements and whose values and costs are most frequently watered. These are the railroads, protected industries, western farms and city lands. A city lot valued at $100,000 or a western farm that sells at $100 an acre represents a higher proportion of watered values than do railroad stocks or the protected trusts. The application of the principle of physical valuation to railroads does not mean any advantage to the public so long as the same principle is not applied to farms and city lots. Low railroad rates mean a high value of western farms with higher rents and more congestion of population in eastern cities. Should the value of western farms go up to $150 an acre because of lower rates, it does not mean that western farm laborers will get more wages, or that farm produce will sell at a lower price in eastern cities. Higher land values will push the pressure of population into cities more rapidly than before and the pressure to lower wages will be strengthened. These conditions will make apparent the advantage of extending to land the same principle of physical valuation that landholders now want to have applied to railroad property and to protected industries.

The doctrine of cost prices, the physical valuation of property and the control of prices by the state cannot but bring on a series of class conflicts in which the minority will suffer at the hands of the majority; for the

kinds of property that are in the fewest hands will be those to which this principle will be first applied, and each other kind of property will be attacked in turn until the application of the principle is general. The dilemma of the principle of physical valuation is that a limited application of the principle does not aid the public; it merely lowers the value of one form of monopoly and raises that of some other. Farms go down in value as railroad rates go up. Land values in cities go up as tariffs go down. Some special class gains by the price changes which the introduction of cost prices in other quarters creates. The public gains nothing by these price conflicts, however the state settles them. To permit it to control some prices is to give it the power to favor special interests; on the other hand, if it control all prices the state becomes socialistic.

It is often said that the way to avoid socialism is to control particular prices such as railroad rates or tariff schedules; but this control will not help the public so long as other forms of monopoly remain undisturbed. Partial socialism does not cure socialism, because it does not remove the evils of which the public complains. It merely reduces the rate of progress, and thus, by the stagnation it creates, gives new strength to the demand for more thorough-going socialism. The line of cost is the line of bankruptcy, and the state must soon take over any industry or enterprise that must face unexpected costs but cannot retain extra gains. We cannot get free trade through low tariffs, cheap food through low railroad rates, lower house rents by reducing the price of street-car transportation, nor can we get natural low prices through state control of particular industries.

While monopoly cannot be prevented, its amount can be reduced by the increased power of substitution which improvements bring. The gains of monopoly are temporary, due to sudden increases of productive power. But each generation will see its sphere reduced, for the power of substitution constantly works against monopolies, as it works adversely to rent, profits and interest. Wages will gain what these shares lose, and will in each generation form a larger part of the price of commodities. The changes that time brings can be illustrated in a diagram [as shown in Fig. X].

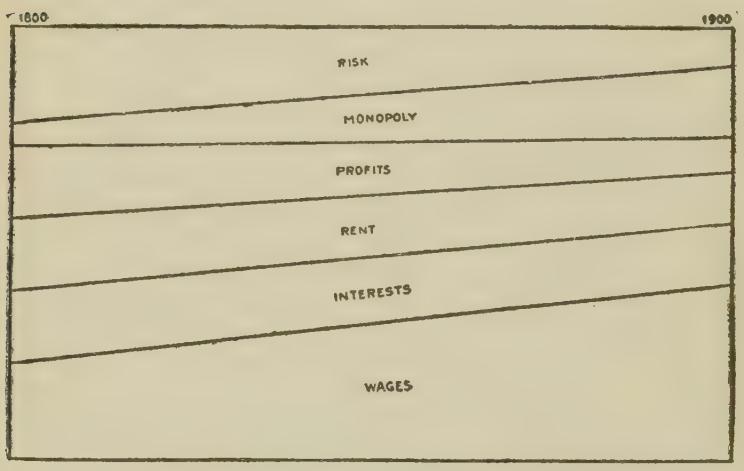
The area of this diagram represents the total price of commodities, while the shares of the various factors are shown by the distances between the lines that divide the area into parts. The changes of the past century can then be pictured by the alterations in the distance between these lines. It shows that wages have steadily increased while rent, profits and interest have fallen off, not in amount, but in the part they play as elements of price. Special monopolies have increased in amount, but not in a way to increase prices, as the element of risk has decreased more rapidly than monopoly has increased. So long as the gains of special monopolies are not larger than the reduction of risk there is no transfer of income to them from any other class.

America is now at the point in its national development where these monopolies are at their maximum. Should a diagram of the price movements of the next century be made similar to the one just given, special

monopolies would be a falling share like rent or interest, while wages would continue to rise even more rapidly than in the past. There is no danger of a permanent increase of industrial monopoly. The new forms that arise will displace those now existing as new forms of profits appear with each change in the industrial situation, only to disappear again with the spread of knowledge and efficiency. We can thus work away from a condition of monopoly through the alterations in industrial conditions, but we cannot crush monopoly nor make sudden reductions in its total amount. Public policies to be effective must reach it indirectly by changes that increase the rate of progress. We cannot afford to check progress in order to test an untried principle in the distribution of wealth.

Thus far improvements in distribution have been effected by the slow diffusion of income and intelligence that follows the general uplift of

FIG. X



mankind. Much more is to be gained by a redistribution of population so that the national resources will be better utilized than by any scheme for the forceful alteration of prices, or the redistribution of property. The real remedy for a bad distribution of wealth is more capital to develop our unused resources. We should have double the amount of capital invested in railroads and even more in our industries. The rate of return on capital that secures progress through new investments must be higher than the rate of return that preserves capital.

The redistribution of population following improvements in transportation will eradicate what now seems an evil in distribution, but which in reality has its cause in the present bad location of population and industry. The road to prosperity is not through class conflict, with its mulcting of the minority—it is rather in social improvements that take men from the mar-

gin of production and place them in contact with better resources and in more favorable situations. Civilization is a change in conditions, not an increase in fighting power. It is a movement from conflict to harmony, from a brutalizing environment of individual discords to one of peace, sympathy, and coöperation. The power that moves the race forward is that which brings the feelings and interests of men into accord, which takes men from groups with local conflicting claims, and merges them into a solid, unified nation.

Only general far-reaching changes can give a new environment and free mankind from the depressing restraints that cause misery and poverty. Two plans for the increase of equality are open; either there must be a sacrifice of those having economic advantages in the hope that their loss will be a gain for others less advantageously situated, or there must be social work on the part of those economically favored directed towards a change in the conditions under which the poor live. Both plans have a morality, but one is the primitive morality of sacrifice, while the other is the economic morality of work. Both take income from the well-to-do; the one gives it to the poor to use as they will; the other takes it to improve external conditions from which all benefit. Primitive justice demands the giving up of all we have for the poor; economic justice consists, not in giving up positions of advantage, but in creating similar positions for other people. It is only the extension of opportunity, the growth of efficiency, the spread of knowledge and the increase of health that can cause poverty to disappear and give a secure income to every family.

A program of social improvement thus demands work rather than sacrifice. Wages should be raised, not by giving income to workers in poor situations, but by moving them to positions of advantage in other localities and industries. Social work consists in moving people from the margin instead of aiding them at the margin. It takes men from places where poverty and disease oppress them and gives them the full advantage of a better position. It gives to the city worker the room, the air, the light and the water that the country worker has, but without his inefficiency and isolation. It gives more working years and more working days in each year, with more zeal and vitality in each working day. Health makes work pleasant, and pleasant work becomes efficient work when the environment stimulates men's powers to the full. Poor land must be made good land; desert land must be made to yield a generous return; the uplands must be turned into forests so as to protect the richer lands of the valleys; the unskilled worker must be transformed into an efficient citizen; the irregular trades into which marginal men flock must be safeguarded so that they will stimulate and elevate the worker instead of lowering his life and vitality. Children must be kept from work and women must have shorter hours and better conditions. Men can thus be moved from the margin and an equality secured through the more generous return which the new situations give. By these means the incomes and personal efforts of those favorably situated can reduce the evils of poverty without the destruction

of the advantages upon which their welfare and the progress of society depend.

The nation can gain economic equality by moving forward; it can regain primitive equality by a reassertion of cost standards. A clear perception of this contrast will free the American people from the difficulties of their present situation. We cannot compromise between opposing programs for social betterment. We must do more work for others or suffer severe losses at their hands.

PRAGMATISM AND SOCIAL SCIENCE[1]

THE field now occupied by the social sciences, morality, logic and philosophy was in the eighteenth century regarded as one discipline and discussed from a single viewpoint. Out of the common traditions of this old moral philosophy the various social sciences and types of philosophy have arisen. There are many views in the various fields that show the influence of the common background from which they were all derived, yet the specialization invoked by the example of the physical sciences has produced the dominant tendencies found in them. Each group has its own associations and organs, goes its own way, and sets its own standards. This isolation has brought some advantages and many evils. To divide a common field into parts leads to accurate knowledge of details, but it destroys the basis on which action depends. There is but one society and all are parts of it. Any conclusions we draw apply to the whole society and are verified in the daily actions of men, not penned up within some narrow precinct.

It is the emphasis of premises instead of consequences that has divided the old moral philosophy into so many parts. Each so-called science has its special premises from which, by a chain of reasoning, an artificial man, society, or nature is constructed. The so-called economic man and the economic society in which he is supposed to exist are good illustrations of this tendency. Each special science has such an artificial man and views society in the same cramped way. There is no other manner in which premises can be traced and made to seem as dominant as is demanded by the special science in question.

This emphasis of premises is due to the success of Newton's proof that gravitation is the cause of the movement of the heavenly bodies. All the scientists of the latter part of the eighteenth century were filled with wonder at the boldness of this generalization and sought through a corresponding premise to attain the same result in their field. Kant was as much under the influence of this idea as were Ricardo and Comte. Modern rational tendencies could not have arisen but for Newton and his law. As a result we have the isolation now manifested in the various social sciences and philosophy, each with a creed and none with the power to survey the whole field of human action. Physical science can isolate and experiment; social science can not. It must therefore begin with consequences and move back to origins. A comprehensive view is the only one that can successfully carry through this reverse movement.

The present situation is made for us by these facts. The prime obstacle to future progress is the isolation of workers into special groups, each with

[1] Reprinted from *The Journal of Philosophy, Psychology and Scientific Method*, Vol. LXXX, pp. 273–9, November, 1911.

premises of which they feel sure, but with few conclusions of import to the great social unit of which we are parts. Against this isolation of workers a reaction has set in, with the result that in each field there are insurgents in revolt against conclusions drawn from the meager data that each special science affords. The contrast of "stand-patters" and insurgents, now so familiar in politics, represents the attitude found in every science. The conservatives rejoice in the emphasis of old truth and hold rigidly to the divisions that the past century has devised. The insurgents, however, are partly held by the charm of the old thought, and yet so discontented that they break through its logic and reject its data at particular points. It is the weakness of insurgency that it occupies a false position due to its adhesion to the old in principle, while breaking away from it in matters of detail. If the whole antecedent scheme with its logic and methods is overthrown, the new is no longer insurgency, but a rival scheme with its own logic and data. Such a reconstruction stands ahead of us, but is not yet realized in any field. The insurgents still regard themselves as economists, sociologists, moralists, or philosophers, depending on the discipline, education, or consciousness of kind that binds them to the group in which they find themselves.

As insurgents, each group of objectors is bound to fail. It is only as they get outside of the narrow precincts of their special sciences and unite on a common platform that they can drive home the changes in social thought in which all are interested. Virtually the same contest is to be found in every field. Under different names the same ideas are being enunciated, and they all express, each in a different way, the opposition to traditional thought upon which their insurgency is based. I have been fighting for twenty years as an insurgent in economics. It is interesting to see the ways in which the conservatives have fought off the change that must inevitably come. They have yielded just enough to avoid defeat, and yet managed to hold every essential doctrine in their creed. Several times I thought their position was undermined, but each time, through a new alignment and the seizure of new terms to express old ideas, they have won a victory. This is the inevitable result of fighting old thought with its own weapons. The insurgent stirs up a temporary commotion, but finds that no permanent change follows.

My present interest has been aroused by finding that the pragmatists have, within the camp of the philosophers, been fighting the same battle that I as an economist have fought with my colleagues. And I believe that if they fight with philosophic tools and accept its precedents they will suffer the defeat that other insurgents have met. The grip of intellectualism is too strong to be broken by guerilla warfare. Only when the insurgents break the bonds that hold them to their various groups and unite on common grounds can they avoid the detailed defeat that each group by itself must face. We need a new social science, a new philosophy, and a new mental discipline which will face the facts of to-day without the presuppositions the old thought imposed.

To face these problems successfully demands a clear enunciation of the principles on which knowledge depends. Knowledge is either a structural problem based on certain data, or it is a genetic problem, in which case its social origins must be laid bare. I say *social* consciously, because the mass of our knowledge we derive at second hand from the society of which we are members. Acquired knowledge is not a part of our heredity nor is its data ever fully presented to the senses. Each generation impresses its thought, language, and civilization on the next. The social process on which the continuation of this knowledge depends is outside of individuals and acts according to its own laws. A child growing up in such a society has his ideas shaped and the content of his knowledge determined by the contrasts and agreements which the social process presents and enforces. The mass of our knowledge is derived from our civilization and not from personal experience. The testing of acquired knowledge by individuals is incomplete, and could not of itself be made the basis of its reliability.

At this point, I wish to give a definition which, if accepted, will do much to clear away the confusion that exists. *Truth is a judgment about acquired knowledge.* Each person, as he is incorporated into society, has presented to him for acceptance the social knowledge upon which civilization depends. If he doubts the individual who imparts it, to him it is a lie. If he doubts the correctness of the social process by which knowledge is passed along in society, the imparted information is regarded as an error. Errors are social; lies are personal. Together they make up the data that are contrasted with truth.

This definition of truth conforms closely to social usage, although narrower than that given by philosophers. It has the advantage of confining truth judgments to one type of knowledge and thus enables us to set up definite criteria for its determination. All knowledge, however, is not acquired. In addition to the social process, there are two natural processes, the sensory process that gives us *facts* and the motor process that gives us *values*. If we limit truth judgments to acquired knowledge, knowledge is divided into three parts, each of which is given by a separate process. Truth judgments are made of the content of the social process; fact judgments are made up of sensory material; and value judgments depend upon motor data. In every-day usage as well as in philosophic discussion, these distinctions are disregarded, but with a loss of clearness. Do we, for example, add anything to a fact by calling it a true fact? We may be uncertain whether a given sensory presentation is a fact or not, but the judgment we make is a judgment not of its truth but of its clearness and simplicity. Facts are the elements of our direct knowledge and always depend on the evidence of the senses. The mistakes we make in this regard only become truths or falsehoods when society acts on them and they thus become a part of the social process.

Values as contrasted with sensory facts are evidence of motor activity. They are judgments about the means to ends. There can be no values without ends towards which activity goes out. Utility and value are not the

same, although closely related. If there were no obstacle to the acquisition of an object, it would have no value even if it had great utility. A free good, though enjoyable, has no value. From another viewpoint, a value is an economy of effort. We tend towards that form of activity that gives the greatest return for the least effort. A mode of action that reaches ends by the most available route is valuable to the actor and through it beliefs are generated that impel the act. Values expressed as judgments are beliefs. We have faith only in what we have done or in what society assures us can be done.

All knowledge is thus either truths, facts, or values, each of which is the product of a separate process. Imparted knowledge is truth, perceived knowledge is a fact; knowledge acted on is value. Can we reduce these classes further and thus reduce all knowledge to an ultimate test? This is the problem on which present discussion turns. It is also evident that some simplification can take place, because truth (acquired knowledge), while carried along by the social process, must have had some origin outside of it. It is easy to see how knowledge of this kind is carried along from generation to generation and imposed on each individual in turn, but this does not account for it. The original data out of which truth arose could not have been gained from the social process itself, but must have come from one of the natural processes through which alone direct contact with nature is given. Truth in its origin must either have arisen from sensory perceptions and hence be derived from facts, or it must be based on the motor activity that it generates and hence be a value. Is the test of truth antecedent facts or subsequent activity aroused by its perception? This is the problem that divides philosophers into hostile camps.

In this statement of the truth problem I have not tried to present anything new. What I have sought to do is to define truth in a way that makes a decision possible. If truth is defined as a value or as a fact, the definition determines what truth is and ignores a great mass of knowledge not coming clearly under either head. The social process gives us most of our knowledge, and about it our truth judgments are made. Is it not better to define truth in terms of this acquired knowledge and thus leave open the question whether it depends on sensory facts or motor consequences? Both of the disputants would thus have a fair chance to prove they were right by successfully accounting for acquired knowledge.

To decide this question we must put ourselves in the attitude of a child who gets his knowledge from others, rather than in that of an investigator who tries to face nature directly. The power to investigate comes after society has given to the investigator the main data passed on from generation to generation by the social process. Judgments about what we receive from others are made earlier than those we make about our direct relations to nature. What tests, therefore, can we set up in relation to this acquired knowledge which comes to us certified by our elders, superiors, and teachers? In my opinion, the primary test of knowledge derived from others is the logical test of consistency. If two things told us are con-

sistent, we accept them. If they disagree, we reject one of them. Logic is our most frequently used test of truth. By it we determine what we can assimilate and what we must reject. But it is not only test: a second test is to be found in its origin of ideas. That which several judgments have in common is more firmly established than that which depends solely on its consistency. Consistency relates to the content of what others give us: agreement is the relation between what we now get from others and the body of experience and knowledge already acquired. We judge our present acquisitions of knowledge by that already assimilated and made a part of ourselves. The truth is thus at first judged by its consistency and then by its agreement with earlier knowledge. In this way we get a primary and a secondary test of truth, and through them we judge the great mass of acquired knowledge given to us by our predecessors.

While, however, consistency and agreement are our most commonly used tests of truth, they are not its final test. The end of knowledge is activity. For knowledge to become truth it must guide the recipient in the acquisition of desired ends. All new or dynamic truth is reached in this way, and to the test of workableness all truth must finally come. It is only the static, imitative element in society who are never conscious of using this test. They are so thoroughly socialized that they take what society gives and never question its authority. A static thinker is conscious only of testing the logical character of his thought. He can neglect the test of activity only because the knowledge he accepts has been tested so many times by the activity of his predecessors who have already made static knowledge logical and harmonious. He who goes beyond the accepted social beliefs of his day must also go beyond mere consistency and face nature through his activity. The final test of truth is thus the action it evokes. Belief is truth transformed into motive, and motive generates the will-power to reach its ends. Belief, truth, and action are thus bound together, and all of them are tested by the consequences they bring.

The preceding discussion assumes that knowledge is derived from three processes, each of which has its own test and criterion of correct judgments. The social process puts us in contact with society and enables us to appropriate its accumulations and products. The psychic process gives to us the facts of perception upon which our knowledge of the external world is based. The motor process promotes adjustment and gives value to all workable knowledge. Truth, facts, and values are the three elements of knowledge, each certified to by its special process. Dogmatism consists in the attempt to make some one of these tests absolute. A monistic standard means the denial of the other two, and to get this unity skepticism must first be employed to discredit other standards. Social dogmatism accepts the traditions of society and will accept nothing as truth but what is based on authority. Psychic dogmatism takes perception as its ultimate criterion, and rejects all social data not derived from psychic phenomena. This, if carried to an extreme, is radical empiricism. Structural dogmatism accepts principles as its ultimates, and builds up the universe out of them. This,

when fully worked out, becomes transcendentalism. Motor dogmatism makes values the basis of knowledge, and rejects all doctrines that fail to meet the test of activity. All these creeds are plainly defective if knowledge is not derived direct from nature, but comes to us as products of three coördinate processes. While skepticism may confuse, each of these processes will in the end make valid its claims, and thus put the various kinds of knowledge on terms of equality. Truth is not a perception, but a judgment on socially imparted data. Facts are not truth, but are perceptions certified to by our sensory mechanisms. Values, likewise, are results of our motor inheritance, and get their validity from the series of successful adjustments through which our heredity was built up.

Reality and truth are not identical, but are distinct problems. Truth is the product of a process. Reality is antecedent to all processes, and can not be derived from any one of them. Do the ultimates of our knowledge correspond to the ultimates of reality? This is a vital problem, but it is not the same as the problem of truth, which, when correctly put, asks: Shall I or shall I not accept the knowledge derived from others and certified to by them? An answer is demanded to both these questions, but only confusion can arise from trying to blend them into one or from attempts to settle both of them by the same data.

It is the answer to the second question that brings pragmatism and social science into harmony. If truth is not a perception but a judgment of acquired data, its discussion involves all the problems that lie back of social science. On the other hand, as social science leaves behind the data of its concrete sciences and looks into the processes by which its facts are given, the social scientist must become a philosopher and treat the antecedents of knowledge as well as its manifestations. A simple but united viewpoint can thus be obtained which will blend the various groups of insurgents into one body, with one method and one measure of truth, Pragmatism must become more than pragmatism to succeed, for the truth relation cannot be settled apart from other fundamental problems that recent progress has forced modern thought to face. Pragmatism, sociology, economics, and history are not distinct sciences, but merely different ways of looking at the same facts. The logic, the method, and the mode of verification are the same in all of them. They all must accept consequences as the ultimate test of truth, and these consequences are measured in the same broad field of social endeavor. To gain this end, the intellectual reliance on premises must be broken. There is thus a clear issue between the new and the old. Is truth measured through its consequences or through its antecedents? Is thought static or dynamic? Is the mind a structural unit or a genetic growth? Shall investigation proceed positively from data or skeptically from analysis and differentiation of ideas? In different terms and in many ways these questions are being asked. They all lead back to a common ground and demand the same solution. When they are answered, human thought will have advanced into a new stage and the obstacles to social progress will be much reduced.

THE BACKGROUND OF ECONOMIC THEORIES [1]

IT is a weakness of economics that the social ideas upon which its theories rest have been neglected. Economic theories have been put forward as though they depended solely upon physical or objective conditions. This view obscures the relation between economic theory and the epochs in which it originated; it makes what really is of class origin appear as though it were a necessary element of human nature. To understand its development the history of economic thought must be divided into three epochs, which may be designated as the epoch of 1776, that of 1848, and that of 1912. The social thought of the first epoch brought out the elements in human nature and in objective conditions that contributed to the harmony of interests. The early economists thus emphasized general laws, and were optimistic in tone. This epoch ended in 1848 with the revolution by which it became well known.

To understand the new group of writers which now appears, the political and social development of the time must be reviewed. The group to which Adam Smith belonged had influenced public opinion in England and on the Continent; by it a radical, or at least a liberal, viewpoint had been created. As a result, however, of the Napoleonic wars, a definite reaction began in all Europe which has its basis in the thought that social progress had been too rapid, and that either a reaction was necessary or at least a considerable halt should be made before new progress was undertaken. This made the thought of 1848 either revolutionary or reactionary. One group of thinkers contended that progress had been too slow and hence should be accelerated by a revolution, while the other group regarded the forward movement as too rapid and hence thought that in some way it should be checked. A representative of this English reaction is Carlyle. In Germany the movement associated with Bismarck had the same ideal and end. The best representative of the revolutionary movement is Karl Marx, since from his writings the revolutionary socialism of recent years has taken its origin.

It is not my purpose to discuss in full the views of either group of thinkers. The contrast, however, is definite and has constituted the basis for discussion during the last sixty years. The most influential representative of this opinion is John Stuart Mill, whose position therefore needs attention. Mill was as revolutionary in his ideas as was Karl Marx, and one of his essays of this epoch is *A Defense of the Revolution of 1848*. Mill, however, was not consistent in his position. When he wrote his *Political Economy* he was reactionary in production and revolutionary in distribution.

[1] Reprinted from the *Publications of the American Sociological Society*, Vol. VII, pp. 126-30, 1912.

To make this clear, the attitude of Adam Smith must be contrasted with that of Mill. Smith regarded production as varying with quantities of labor, and thought that improvements in production were connected with the improvements in the condition of the laboring class. Mill's emphasis in production is not on labor but on capital. Hence he views the progress of society, not in connection with the changes in the laboring class, but rather with the accumulation of wealth. From standards of labor to standards of capital there is an evident reaction, because capital appeals to many fewer motives than do the incentives to labor. It is also a class appeal. Relatively few are aroused by the motives for saving; the great mass of people contribute to production only through their labor.

It is equally clear that Mill expected a revolution to take place in the distribution of wealth. At the present time, most economists neglect the first ten chapters of Mill's theory of distribution and spend their time analyzing the next five. There is, however, a reason why Mill discussed the distribution of property and emphasized it more than he did the distribution of income. Whenever he speaks of the distribution of property, he always speaks of it with some limitation, as "under the present time conditions," or "for the time being." He anticipated that at no distant date radical legislation would alter materially the property distribution then prevailing in England. The theory of the distribution of income stated in his later chapters is presented not with the thought that these laws would elevate the laboring population to a higher position, but rather with the view to showing that this transformation is so difficult that it is not likely to take place. His position, therefore, is as radical as that of Marx; Marx, however, relies more on the revolutionary methods as applied to the distribution of income, while Mill would effect the same end by a distribution of property. In either case, a radical reconstruction of society would take place. Both Mill and Marx were plainly of the opinion that this transformation was inevitable and desirable. The compromise which Mill effected between reactionary production and revolutionary distribution was accepted by the economists of the next generation, not as a compromise, but rather as a solution. Only after long, serious study did the inherent opposition in Mill's position become apparent. It was then recognized that between Mill's theories of production and distribution an irreconcilable gulf intervened.

In the epoch following the publication of Mill's *Political Economy* the economists were divided into two groups: one attempted to make economic theory consistent by making distribution reactionary; the other group attempted to acquire consistency by creating a revolutionary theory of production. Of the latter attempts, the work of Karl Marx is prominent. His book on *Capital* is an endeavor to give a revolutionary basis to theories of production. I shall not describe his efforts in this connection, but it is plain that they have failed. No revolutionary theory of production has been worked out in a way that would gain for it general recognition. The law of increasing misery, the iron law of wages, and similar doctrines have been

either abandoned or discredited. The movement, therefore, to gain consistency in economic theory through revolutionary concepts in production must be regarded as a failure. In a like way, although it is not so generally recognized, the endeavors to create a reactionary theory of distribution have also failed. Writers with reactionary tendencies have not experienced many difficulties in restating production, but in the attempt to put the theory of distribution on a plane similar to that occupied by the theory of production the shortcomings of their theories are apparent. So many writers have attempted the task of creating a consistent economic theory that it can now be regarded as something impossible to do. If consistency and harmony are to be attained, economists must find some new way of handling economic problems.

This brings us into the present epoch; 1912, at least for America, seems clearly the year in which the break from the old to the new has become apparent. The essential thing in the new epoch is the increased power of evolutionary ideas. To-day, instead of having a sharp contrast between reaction and revolution, a third alternative is possible—progress through evolution. I shall therefore put the three groups in conscious contrast, so that the elements upon which each depends may be made clear. In order to do this, I shall give a table in which the elements for reactionary, revolutionary, and evolutionary reasoning are contrasted.

Reactionary	Revolutionary	Evolutionary
Retrospective	Large	Incremental
Hypothetical	Sudden	Persistent
Dogmatic	Militant	Voluntary
Undemocratic	Heroic	Material
Class-conscious	Epoch-making	Planless

Reactionary thought begins with a retrospective, or perhaps it is better to say, a historical attitude, since there is an emphasis on old conditions and old ideas, rather than on those of the present. With this basis, the reasoning becomes hypothetical, and as the class feeling that results develops, reactionary thought becomes dogmatic. It also changes into undemocratic forms, which end in the emphasis of the superiority of the capitalistic class over those who are engaged in manual labor. The reactionary thinker is also class-conscious, because he views the world from the standpoint of his particular group rather than the nation as a whole. In contrast with this, revolutionary thinkers expect large results to come suddenly by transformations that are epoch-making in their consequences. There is also a decided emphasis on militant action ending in or at least transforming itself into heroic action. All revolutionary thinkers look to some hero to make the transformations they hope for rather than to the small steady changes that lead to regular progress. A much-quoted statement from Mill represents this view: "When the object is to raise the permanent condition of

a people, small means do not merely produce small effects, they produce no effects at all." If this be true, then social progress depends upon those epoch-making changes that revolutions inaugurate, and must be brought about by the revolutionary measures that disturb the normal growth of society.

In contrast with this, evolution proceeds by small changes that are persistent in their action, and therefore create cumulative effects. There are also those which can be measured objectively. The changes that follow can usually be represented by some statistical curves. This gives to evolutionary concepts a material form and emphasizes the slow changes that progress is making. Such changes give but little place for heroic action. The man who makes small improvements is usually a commonplace individual, and yet it is the accumulation of these small changes that reorganizes society, and in the end improves its tone and character. The hero is out of place, except where militant action can create epoch-making changes.

THE REVIVAL OF ECONOMIC ORTHODOXY[1]

TO the student of thought, it is interesting to see how long a theory persists after its foundations have been undermined. One can almost say of theories that, like superstitions, they never die. They have at least nine lives and are killed again and again before their adherents can give them up. And the worst of it is that disproved theories have an especial attraction for the best minds. It is not poor thinkers, but good ones, that try to square a circle or to create perpetual motion. Old thought is also well-formulated thought. It has a complete terminology and its shades of meaning can be expressed with accuracy. New thought must use terms that are unfamiliar to the public or are twisted somewhat from their popular meaning. A logical thinker let loose on a new topic can play havoc with the printed page of his opponent who has the facts but does not have the language to express his view. Only when one has tried to state some new thought does he realize how poor a vehicle language really is. He finds that most words are synonyms used to express old ideas in many ways. None of them is free from implications that turn the reader back to the older view instead of helping him to break new ground. New thought does not get into the printed page until long after it is a reality to those who study nature instead of books.

This statement has been provoked by an article entitled "A Bugbear to Reformers" in the May number of this magazine. If Professor Carver had put his article into an economic journal, his readers would understand what he has omitted or covered up. He chooses, however, to appeal to a less specialized audience and talks in terms of analogies, instead of stating the economic facts. Reformers, he says, deny that water runs down hill. This kind of talk has a familiar ring. It is the way orthodox economists of a preceding age reasoned. They rarely stated or even knew the facts. They routed their opponents by a free use of analogies drawn from the physical sciences. While this sort of reasoning fell for a time into disrepute, it has of late shown a renewed vigor because some of the new economists have pushed so far ahead as to be on unstable ground. A reaction has set in and on the tide of the reverse movement some expect a return of the good old days when economists talked of the law of gravitation, the rise and fall of tides, the equilibrium of physical forces and like analogies, instead of squaring their theories with the facts. This gives Professor Carver his chance to question the sanity of those who reject his favorite doctrines.

[1] Reprinted from *The Popular Science Monthly*, Vol. LXXXI, pp. 246–9, September, 1912.

At first thought, scientists may favor a settlement of economic problems by the use of familiar ideas involving no economic knowledge, but in the end it will prove a mistake to appeal from adverse economic opinion to those versed in physical science. The orthodox economists were city people who let their imaginations have free play in agriculture. One of their pictures was that of a vast plain of identical soil and climate. After picturing this world, they asked what motive could any one have to move from one part to another? To this Professor Carver replies, "Whenever agricultural populations tend to spread, it is either a sign of insanity on their part or of diminishing returns on land."

To deny this, an economist does not have to pump water up hill. He questions the picture on which the law of diminishing returns is based. The principle that Professor Carver overlooks is the localization of soils, climates and products. The various geological deposits are irregularly placed and the climates found in different localities are even more diverse. Animal and plant life have been localized so that each locality yields different products or the same product at varying costs. No acre can yield as much return to labor as if it were spent on many acres or in many localities. Conversely, no race living on one article of food or using one kind of clothing or shelter can be as vigorous as those who supply themselves with a greater variety. The spread of population is due to this fact. The more climates, soils, animals and plants utilized, the better the living and the lower the costs.

A primitive community does not, as Professor Carver assumes, use a single soil and some one food. It is as complex as a modern state. The bottom land is used for plowing, the upland for grazing. There are wood lots, fishing places and an open region where wild game roams. Men go farther for goods in the modern than in a primitive world, but this does not imply diminishing returns. When they herded sheep in an adjacent mountain valley, the effort then needed to get a pound of wool was greater than it now is to bring it from Australia. We have increased the distance traveled, but we have reduced the cost. Every spread of population has brought increasing returns because it has helped men to utilize the natural resources of the various localities. Is a community wise or foolish which uses different soils and climates instead of confining itself to one? Can two communities with different soils and climates exchange commodities to mutual advantage? If they can, there is a valid reason for the spread of population. Such a movement is not as insane as it seems to those who do not appreciate the localization of resources.

Professor Carver asks why England should not get all her agricultural products from her own soil. The obvious answer could be found in any economic text-book. England has great stores of coal and iron, while other regions have none, or what they have is of inferior quality. This localization of resources makes an exchange of products advantageous, and in such an exchange the lighter and more easily moved products are transported. This fact has been greatly to the advantage of England. Food

has come to her instead of coal, iron, cotton and wool going elsewhere to be worked up. This advantage is now lost and there is a spread of industry to other nations, much to the disadvantage of England. The pressure that is now producing so much poverty in England is not due to diminishing returns, but to a more natural distribution of industry. Another reason for the movement of food to England has been the unstable political conditions elsewhere. If Russia will not protect industry, her food goes to countries where it is favored. The diminishing returns thus caused are felt, not in England, but in Russia. England gains by trade with inferior nations and has her profits raised thereby. It is not England but the inferior nations that pay the cost of transportation.

Professor Carver asks why urban population grows, and again answers—the law of diminishing returns. The real reply is that urban population grows because the scale of production is increasing. Centralized industry yields a greater return than localized workers receive. He also asks why it is necessary to change our habits; eating, for example, more oatmeal and less beef. In replying, he is as far off here as in his other answers. It is not the poor who cut down the amount of meat they eat. It is the more intelligent, and they do it because a varied diet gives them more energy. That the English eat beef and wheat bread is not due to their superiority as food, but to historical conditions. English habits are social survivals, not physiological necessities. The English eat meat for the same reasons that the Jews refuse pork. If these old dietary laws prove anything, it is that the law of diminishing returns is a social tradition and not a physical law. Why, he also asks, are inventions and improvements made unless it be to enable increasing populations to avoid the law of diminishing returns? Inventions are not made to support increasing population: population increases becauses inventions have been made. I can point to forty instances where the increase of population has followed inventions. I doubt if he can point to one where the increase of population came first. Growing population is an effect, not a cause. Men make improvements to increase their product. The economy of effort is a psychic tendency, not a physical fact. We get inventions as men move up in the scale of existence, not as they move down.

Two fundamental facts are thus involved in the relations of men to nature. The resources of the world are localized and population must spread to utilize them. This natural spread is limited by the cost of transportation. On the other hand, the economy of effort demands the concentration of population. Inventions and large-scale production give advantages to centralized industry. When population does not spread, we may be sure that centralized production is overcoming the disadvantage of transporting goods. If X represents the cost of moving goods and Y the advantage of centralized production, the equation that results is $X<Y$, that is, the effort of moving goods from place to place is less than the advantages in production and consumption that such a movement brings. Greater returns, greater population and its wider

distribution go together. The one society into which we are blending will utilize the world more fully than the many local societies of the past have done, and at the same time its members will be a multitude so vast that the underpopulation of the present can be readily seen.

THE RECONSTRUCTION OF ECONOMIC THEORY [1]

Introduction

LAST spring a fellow economist asked what I expected to write next, I replied "A book on progress." He then expressed regret that I was deserting economic theory and was kind enough to say that I was one of those who had aided the advance of economic thought. To this I said that my last book on economics was a failure, and having realized this I resolved to write no more books on economic theory until I could see some attainable goal. We discussed this point but parted without agreement. Soon after I met a friend who said, "I am interested in the referendum and the initiative." "I am not," I replied, "the American people should decide what they want to do before they try to settle how to do it." "What is the use," he retorted, "of knowing what you want until you know how to get it." While I was thinking over this conundrum I had a conversation with another friend over the conflict within the Republican party. When our differences became manifest, he said that I was growing conservative while he was becoming more radical. I replied that the real difference was that he was revolutionary while I was evolutionary.

These conversations led me to realize that concrete problems are shaping themselves in a way that only better theory can solve. Public opinion is not to-day what it was ten years ago when my *Theory of Prosperity* saw light. There is a new setting to every national problem and a clearer perception of each issue. Out of it must come a thought development that will force a better industrial adjustment.

My determination to restate economic theory was strengthened by a realization of the changes in attitude wrought by my recent development. While a student in Germany I became imbued with the German view and came home hoping to help in the transformation of American civilization from an English to a German basis. Like other returning students, I thought the last word on all subjects was in German.[2] This attitude led to a wrong estimate of the contributions of English economists and to a neglect of the antecedents of the ideas we were striving to express. It is a German axiom that German thought is the continuous expression of the best in the world's civilization and that in it are to be found the antecedents and basis of a modern development. I was carried away by the brilliancy of this thought and viewed the past as a series of victories of the Germanic race. From this concept my best thought has come as well as that of other American economists. But

[1] Reprinted from *The Annals of the American Academy of Political and Social Science*, Supplement, November, 1912.

[2] Cf. Professor Patten's *Culture and War*—R. G. T.

when applied to economics it leads to a misinterpretation of the facts. Economics is English both in its origin and development. Its ideas are not German either in its recent or earlier development. German economists have followed the natural trend of German thought in seeking economic origins in the race history of which they are a part. This limitation takes from their conclusions the weight American students sought to give them and forces a reconstruction of economic theory along other lines. Of what consequence is Marx's development unless he was a leader in the evolution of thought and not merely the interpreter of English economics to the German nation? Assume also that Germany is not ahead of us in development and her 3,000,000 socialists afford no indication that our progress will bring a like development. Are we the pacemakers in economic evolution or is Germany? When this is decided the dependence or independence of American thought settles itself.

Aside from a German education the potent influence in shaping my career has been the writings of John Stuart Mill. I have regarded myself as his disciple; and while other heroes of my youthful ardor sank beneath the horizon he remained the one personal influence shaping my thought. In my *Development of English Thought,* I looked on him as the high-water mark of Nineteenth Century thinking, and believed that this interesting epoch ended with him. Were I to write the chapter on the "Nineteenth Century" again I should make of him not a goal but a half-way house between the dogmatic rationalism of the earlier epoch and the rising wave of sentiment and class hatred in the new. Mill goes from logic to sentiment without being conscious of the opposition between them or of the change going on within himself. He is a thinker becoming a socialist without seeing what the change really meant. The Nineteenth Century epoch ends not with the theories of Mill but with the more logical systems of Karl Marx and Henry George.

The new epoch in American thought begins with the contrast of rationalism with pragmatism. To apply pragmatism to economic thought means to test historical epochs by the results that flow from them. Instead of anticipating changes and deducing social consequences from them, epochs are to be studied subsequent to their completion. The Nineteenth Century should be judged by the facts of 1912, not by the anticipations of those who took part in its progress. It is not what Mill, Carlyle, Spencer or Marx thought would take place but what has actually happened that should interest us. This means a change from prophecy and deductive laws to facts and statistics. If we can determine the truth of deduced anticipations by present knowledge, a new epoch is opened up and fresh studies in economics are needed to point the way of progress.

In this viewpoint I may be right or I may be wrong. It is the final reason why I should return to economic theory and seek to restate its premises and doctrines. Others must judge of its success but to me it has been a pleasant task to reopen seemingly settled controversies and to review them in the light of present facts.

I

The Development of American Thought

The difficulty in measuring the development of economics in America is due to a lack of appreciation of the changes that have taken place in the last three decades. From one point of view it seems as if American economists have made no advance. There is no topic not open to disagreement. On the other hand, there never have been thirty years in the history of economics when so many fundamental changes have been wrought. Economists disagree, and rightly, about matters not yet settled, but in these disputes they overlook the changes that are generally admitted. This makes it possible to review the history of American thought and to separate the changes already made from the disputed points that are still unsettled.

The beginning of the epoch dates from the formation of the American Economic Association. Its founders had little idea of the development through which economics was to pass. American economics has done everything but what was then expected of it. It was supposed that this new group of thinkers would be historical, but no historical work has been done. The unexpected was the rise of the school of deductive theorists—the very thing the formation of the American Economic Association was designed to prevent. I will not, I hope, be regarded as egotistic if I put myself with Professors Clark and Giddings as an influence in bringing about this change. As one who participated in the movement, I wish to review its history with the idea of pointing out its successes and its failures.

At the beginning of the decade it seemed as if these writers had a common ground, and that from their viewpoint a new school of economics would arise. But fundamental divergencies soon appeared which gave three types of thinking rather than one school. I shall describe these, not in the terms of the discussion at that time familiar, but in a terminology that has developed since that time. Professor James has made two words common property in America—one is "pragmatic" and the other, "pluralism." He pointed out, however, that these are not new kinds of thought, but new names for old ways of thinking. Writers have always been rational or pragmatic on the one hand, and monistic or pluralistic on the other. But their differences were not clearly defined until he made the public familiar with these terms. On the basis of these contrasts it seems plain that Professor Clark is an economic monist, while I am an economic pluralist. Professor Clark has endeavored to clarify the economic thought, to state its principles more cogently and to give the general laws of the science a new setting. This, as I understand it, is economic monism. On the other hand, I have started from some fundamental contrast and tried to deduce from each term principles that seem to oppose each other. In my way of thinking static and dynamic are equally fundamental and neither can be derived from the other. In economic discussion we must, therefore, distinguish clearly between dynamic and static principles, and expect that the laws deduced from the one will oppose those derived from the other.

A practical illustration of this dualism is the discussion of protection and free trade, neither of which, in my opinion, can claim ultimate superiority. But in the conditions that arise from age to age, the one or the other policy may be the more effective. So, too, in the contrast between a pleasure economy and a pain economy, neither can be derived from the other, but in particular epochs of the world's history, the one or the other has been dominant. In the same way, the laws of consumption are laws of human nature, and consequently must be derived from the feelings and appetites of men, while the laws of production are those of the physical world in which we live. Consumption, therefore, cannot be subordinated to production, nor production to consumption without disregarding facts to which economists should give attention. Or, to put this dualism in more general form, part of economic science is based on physical nature; from it come laws of universal application which cannot be overthrown by the action of man. On the other hand, many economic laws are expressions of human nature. These are not only capable of modification, but are continually being altered. The one element, therefore, of economics is enduring, the other is temporary. By this I do not mean that human nature is easily altered, but that the features we regard as human are subject to evolutionary modification.

In contrast to the attitude of Professor Clark and myself, both of whom accept economic phenomena as fundamental, Professor Giddings' views are sociological. The difference between economics and sociology is that the economist regards as fundamental the primary phenomena of his own science, while the sociologist regards economic phenomena as a consequence of more fundamental laws. In summing up this discussion, I should say that the differences between Professor Giddings and myself are still unsettled, while the difference between economic monism and economic pluralism has been settled in favor of pluralism. If economic monism is to succeed, somebody must show how the principles of dynamic economics can be derived from the principles of static economics. I do not believe that Professor Clark would claim that he has done this. I think, moreover, that the failure of Professor Clark as well as that of Professor Marshall is a good indication that it cannot be done. Professor Marshall, like Professor Clark, promised a second book that would deal with these broader problems, but the promise has not been fulfilled. The Austrian economists, likewise, have hoped to derive from the principles of utility a general scheme of economics, but no such scheme has been developed. It appears, therefore, that the endeavors to create an economic monism in our age have failed as completely as Ricardo and Mill failed to create an economic monism in their age. The best minds of England and America have faced this problem, and have been compelled to give it up. I, therefore, regard it as settled that there is to be no revival of economic monism in our age. This does not mean, however, that monism as a scheme has disappeared. It is coming forward more prominently than ever before, but it is now sociology, not economics.

A second change of this epoch (1890–1900) is the rise of an economic

interpretation of history. As the economic interpretation of history is associated with socialism rather than with economics, it is necessary to speak more fully of the real origin of this type of thinking. The first person to use the phrase "economic interpretation of history" was Professor Rogers. He used this as a means of getting at the laws which could not be determined from universal principles. The wages problem, instead of being discussed deductively from the principles of nature, is to be studied through the concrete facts of certain epochs in which the wage problem is prominent. He, therefore, regarded the study of four centuries of English history as giving the clue to a real discussion of wages. As a follower of Professor Rogers in this field, I extended the thought so as to make the economic interpretation of history the means of getting at the dynamic laws of social change. The difference between dynamic laws and static laws can be determined under any group of social conditions. They are always present and can always be found. But dynamic laws cannot be determined in this way. The dynamic elements become prominent one after another, and the changes they bring must be studied in the epoch in which they are dominant. If one wishes to study changes in consumption, he must study the epochs where alterations in consumption are prominent. Dynamic changes are also brought about by invention. He must, therefore, look to the particular ages where invention has been prominent to discover what its effects are. The economic interpretation of history, then, is the study of the prominent changes which take place in each epoch, and from a series of such studies one can create a general interpretation of genetic growth. This way of thinking marks a change in the method of economic study quite as important as the pluralism that has come from the contrast between static and dynamic economics. It is a matter of slight importance to know the originator of this method of study. It is of prime importance, however, to know the changes in American thought that have been wrought by it.

The epoch since 1900 has been important for another reason. The characteristic change has been the increasing influence of socialism. In 1900 it could be said that socialism occupied so minor a place that it could be overlooked. The literature of the epoch will, I am sure, bear out this statement. In 1912, however, it would be nearer right to say that all thinkers are socialistic. Either as a matter of principle, or by some type of dualism, they admit it as an element in their thought or as a mode of expressing their feelings. The important book in bringing about this change was Professor Seligman's *Economic Interpretation of History*. Without exaggeration it can be said that this book is the Bible of American socialism. Instead of going to the writings of Marx, socialists refer to it as an authority on fundamental topics. This of itself would be a matter of importance but its real influence lies in the fact that it enabled a large group of American thinkers to accept socialism and to express their ideas in its terms. Karl Marx found the English field occupied by what were termed sentimental socialists. His great work was the transformation of

socialism from a sentimental to a scientific basis. This change had a marked influence on the Continent of Europe, but the sentimental socialists remained in England and America practically as they were. The keynote to their sentimental attitude is a repugnance towards anything materialistic. Consequently so long as socialism was put in materialistic terms, they would not accept it. When, however, Professor Seligman stripped Marxian doctrines of their materialistic interpretation, and gave them a sentimental setting, this group were readily converted into modern socialists.

American socialists are not scientific socialists of the type Marx sought to create. Every leading socialistic writer is clearly idealistic in his attitude, and would repudiate socialism if it were put in a materialistic shape. Sentimental socialism to-day is a new form of expressing idealistic concepts. That writers with literary traditions should accept an economic interpretation of history is a victory. From now on, they are not enemies but friends. Whatever may be the ultimate decision as to particular doctrines, economic evidence will for both groups be fundamental.

II

The Problem

It is plain that American thought has made considerable advance and has attained some degree of originality. From this it does not follow that all theoretical problems have been settled. On the contrary, it is evident that fundamental concepts are still open to discussion, and that the movement in American thought has not yet terminated. Two victories, however, seem to have been won. In the first place, American thought has been made independent of European thought. We are no longer under the tutelage either of England or Germany. The second victory is that economic pluralism has won as against economic monism. By this I do not mean that pluralism has gained a victory over monism. That would be claiming too much. But economic monists must become sociologists, and as such they will be unable to carry on the struggle within the economic field as they have in the past been able to do. As a consequence of this change has come an advance in the economic interpretation of history. The discussion of the past in the light of the present is on a par with a discussion of the present in the light of the past. Without meaning to prejudice the conclusions from these contrasted viewpoints, it seems clear that a sociological interpretation has displaced the old historical interpretation. As a whole, this sociological interpretation is based on a material interpretation. If any one asserts that the sciences have an order of development, and that the physical sciences are fundamental, no escape is possible from the conclusion that the premises of these sciences are also the premises of social science. This means a material interpretation of social development. There is another way of putting this contrast that bases it on the difference between pluralism and monism. If the sociological viewpoint is correct, the primitive history of man is fundamental to an interpretation of the present social life, and

discussions of social affairs must begin with a study of the origins of man. If, however, there are two economies, a pain economy, based on struggle, and a pleasure economy, in which harmony prevails, neither the history of man in this pain economy nor the struggles then important are fundamental to present discussions. The approach to the social life of man must be through his present economic activities.

This gives us one way of stating the problem now confronting American thought. The standpoint of cosmology gives another way of stating it. In the past, two cosmologies have stood opposed to one another. One has been a theological cosmology at the basis of religious thought, and the other, the material cosmology, popular with students of physical science. Both of these cosmologies are monistic, one having at its basis the thought of a spiritual origin of the universe while the other emphasizes a material origin. The economists have not taken sides in the contest between the theological and material cosmologies. Every economist has admitted physical premises. No economist has denied what in terms of religion are called theological premises. It should be remembered that the early economists were theologians, and that the basis of their thought was known as natural theology. Since then there has been a shifting in the position of economists, sometimes towards a more material, and sometimes towards a more spiritual standpoint, but economic cosmology has usually been pluralistic, and thus has accepted premises that must be regarded as antagonistic. There are many ways of expressing the essentials of an economic cosmology, no one of which is fundamental, nor generally accepted. I shall, therefore, put into two columns some familiar contrasts with the idea of bringing out the fundamental opposition that exists between them. In the first column will be found those terms that imply a spiritual or genetic attitude, while in the other are placed those which are material or structural in their implications.

I	II
Genetic	Structural
Sentiment	Logic
Dynamic	Static
Passion	Intellect
Invention	Habit
Observation	Deduction
Intuitive	Statistical
Religion	Science

If the logical or monistic expression of thought is correct, all of the ideas in column I are derived from those in column II. If, on the contrary, they cannot be derived from the ideas in column II, the two groups must be put in a fundamental contrast with one another and as a result an economic pluralism is created. This gives our problem stated in its second form.

If economic pluralism be correct, sentiment must be treated as a fundamental fact, and not as a social derivative. Both democracy and socialism are emotions arising from economic relations which must be accepted as fundamental in any economic interpretation. Democracy is an emotional reaction against the privileges of the strong, and socialism is an emotional reaction against the exploitation of the weak. If one has no emotional reaction against privilege, he lacks an element that modern civilization should have given him. If, likewise, the exploitation of the weak has no concern for him, he must be looked upon not as a superman, but as subnormal. A man may be democratic, that is, have strong emotional reactions against privilege, and at the same time have no emotional reactions against exploitation. The opposite defect of having an emotional reaction against exploitation without a corresponding reaction against privilege is not so common, yet it is real. Both attitudes should be regarded as evidence of incomplete social development.

If a change is made from sentiment to policy, a corresponding contrast presents itself. When men emotionally react against privilege, the economic basis of this reaction is the unequal distribution of profits. The social democrat, therefore, seeks to equalize profits, and opposes any centralization giving one man a greater share than another. The socialistic program demands not merely an equalization of profits but also an equalization of income. This program makes more fundamental changes than would be demanded by a democratic program. To put the contrast in another way, the equalization of profits does not demand any change in the capitalistic system nor in the prevailing system of private property. Both these institutions could be kept in their present form if the emotions of society are aroused against the centralization of profits rather than against the inequality of income. The essence of capitalistic industry is profit. Every industrial change that raises profits strengthens capitalism. It grows in power as the rate of profit rises, and would fall if the rate of profit were taken away.

Such are the facts which create the present problems of American thought. Do invention and economy create wealth or is it the result of toil and sacrifice? This is the problem of production. Are wages and interest determined by concurrent events or by preëstablished laws? This is the problem of distribution. Does social law arise from coöperative assent or is it the coercive result of state action? This is the problem of social control. Is the basis of thought pragmatic and hence economic, or is it dogmatic and thus sociological? This is the problem of method. Are coöperation and compromise stronger motives than discord and struggle? This is the problem of progress. All these are in reality one problem the solution of which demands a unified treatment. In the past economists have striven to build a purely rational system that would be a monistic expression of progress. Their failures have created the present situation and awakened a demand for the reconstruction of economic theory. Economic thought should be based on industrial changes already made and

on social reorganizations plainly manifest. It will thus become pragmatic and incorporate in itself all the elements making for the improvement of mankind.

III

The Origin of Socialism

The American public has recently been aroused by the development af a group of socialists with a philosophy that would revolutionize American life. The cause of this does not lie in the arguments presented so much as in the thought that socialism has a unity which puts it in direct contrast to conventional views. It seems as though we are facing a revolution, and that public opinion must be radically modified so as to eliminate capitalism. Those who present this view emphasize three things: the unity of socialism, the logic of socialism, and the hero of socialism. If socialism is a unit; if it has a hero and a logic, a revolution seems inevitable. This viewpoint was first brought to the attention of the American public by Professor Seligman's *Economic Interpretation of History*. Later writers have been more eulogistic; in its present form the Marxian tradition can be found in an article by Professor Small on "Socialism in the Light of Social Science."[1] The difference in the two viewpoints consists in the fact that Professor Seligman emphasizes the importance of the economic interpretation of history. Professor Small not only accepts the position taken by Professor Seligman, but lauding Marx as the Galileo of social science, enunciates the economic doctrines of which Marx was the originator.

To appreciate this issue the double origin of American economics must be made evident. One basis lies in the Ricardian economics best expressed by Mill in his political economy; the other, in the German historical school in which the present generation of American economists has been educated. If Mill is wrong in his history and the German historical economists in their statements of facts, there are errors in the reasoning of American economists hidden under the prestige of these two groups of thinkers. In the first place, did Mill misrepresent English economic thought? Secondly, did the national prejudices of the German economists prevent them from recognizing doctrines as English that were really so, and in this way misled the American economists who have been educated under their influence?

Why did Mill neglect the real creators of English economics? In the first place, English writers expressed their ideas in theological terms, while Mill was opposed to natural theology. In the second place, the traditions of the group to which Mill belonged were opposed to sentiment as a force in social life. They tried to bring everything to a logical basis, and in so doing overlooked the power of the emotions to shape the lives of men and the history of nations. The work of any thinker who emphasized sentiment was disregarded. This shut out those economists who felt a natural resentment against the industrial system then in vogue.

[1] *American Journal of Sociology*, May, 1912.

These are some of the reasons why Mill did not give credit to his opponents. Why did he emphasize Ricardo? Because Ricardo gave a special attention to the importance of profits in English industry. He also emphasized the evils of over-population, and sought to establish a definite relation between wages and the cost of living. These doctrines favored by Mill were opposed by many economists in his time. He was forced, therefore, to make Ricardo represent not only his own doctrines but many others advocated by opposing economists that could not be credited to them without weakening Mill's position. Mill, more than any one else, was the originator of what is called economic orthodoxy. He would not recognize English writers who took opposing views. When he wished to make use of the doctrines they held he went to the French writers for them. A sample of this is his treatment of socialism. He had been reading foreign books on socialistic literature, and these he utilized in his statement of socialistic doctrine.

The German historical economists are an important element in the new situation because their views have had so great an influence in shaping American economic thought. English political and economic theory had been introduced into Germany during the first part of the nineteenth century, but it was opposed by the rising national sentiment which sought to free Germany from foreign domination. This sentiment is the basis on which recent German progress has taken place and with it no one can find fault. But the general antagonism which it generated towards England resulted in the displacement of English ideas both political and economic. The German historical school went to the side of Bismarck and opposed the social movements having an English origin. This opposition to English ideas, reflected both in history and economics, is one of the striking facts with which Americans studying in Germany came in contact. The result has been that modern economic theory has finally worked its way into Germany as socialism. Marx Germanized English economics. This is virtue and service. Every proposition that he advances, both true and false, had been fully stated in England. But for the prejudices of the German economists, these ideas would have become commonplaces in Germany,[1] and thus would have prevented Marx from gaining position by utilizing them. Of this the doctrine of surplus value is an example.

In seeking the origin of economic ideas, it is erroneous to follow the his-

[1] "There is no socialistic doctrine of essential significance, no socialistic theory of general industry, of historical development, of the state, of law, which had not already been spoken out at the middle of the nineteenth century, and had not been applied in criticism of the existing societary and industrial order; yet German national economic science did not regard it as necessary to reach an understanding with these doctrines. . . . German national economy passed by the signs of the times without attention. The noise of the street, the strokes of the scourge of the agitating publicists, the historical and philosophical observations of the critics of society affected it as little as they would the astronomers who trace out in the orbits of the stars the eternal laws of nature." Quoted from "The Infusion of Socio-Political Ideas into the Literature of German Economics," by Eugen von Philippovich, in *The American Journal of Sociology*, September, 1912, pp. 147–149.

tory of words rather than of ideas. Telling expressions are invented not at the start but only after a long period of obscure development. If the question is asked, who first used the term "surplus value" the answer is that while the term had been used by economists before Marx's time, it is also true that they made little use of it. The real question is, did Marx when he translated into German the term "surplus value" have in mind the older idea of profits? If under the head of profits the origin of surplus value is sought, we find it to be one of the oldest concepts of English thought. Who originated the idea that there was a surplus value in industry, or, in other words, who found that after accounting for all of the expenses of production, there was still a profit left over? The reply to this must be that when commercial bookkeeping came into general use, the fact became known that after accounting for every expense, a large surplus remained. To illustrate this, I will give three examples of bank statements taken from a current financial journal:

I

Liabilities

Capital	$47,000,000
Surplus	26,000,000
Dividends for the last ten years	11, 11, 12, 12, 12, 12, 12, 12½, 12½, 12½ per cent

II

Liabilities

Capital stock paid in	$10,000,000
Surplus fund	15,000,000
Undivided profits	6,500,000

III

Liabilities

Capital stock paid in	$3,000,000
Surplus fund	12,500,000
Undivided profits	800,000

In the first instance, the capital is $47,000,000 and the accumulated surplus is $26,000,000. This surplus is not interest because the same advertisement tells us that the rate of interest for the last ten years has been from 11 to 12½ per cent. It is, therefore, a natural question to ask: to whom does the $26,000,000 of surplus belong? The second statement shows a surplus much greater than the paid-up capital. Can we wonder that people should ask the question, why is this $15,000,000 withheld when thousands of people are working for five dollars a week? In the third statement the accumulated surplus is more than four times the paid-up capital. These are not exceptional statements nor are they new. English banks have given such statements for two hundred years. English financial development also gives the basis for the doctrine that industrial capital is accumulated, or undistributed profits. The orthodox economists claim that capital is the result of saving. This doctrine however, has never been popular with English and American promoters. Every financial heresy has been based on the thought that industry can be started by other means than

saving. Issue, say, $100,000 of paper money and use it to start an industrial establishment. Enlarge the plant from the accumulated profits and live off the proceeds. Capital can thus be created without work; profits can accumulate so as to make not only individuals but the whole nation wealthy. All this may be false, but it is not new. In its origin, it preceded socialism by a hundred years. Instead of being the claim of obscure thinkers, there is scarcely a town in this country that has not tried to increase its wealth by this means. It is the most popular fallacy that economists have had to oppose.

How do these theories become socialism? The reply is that English sentiment has always been opposed to the exploitation of the poor. After the facts of industrial development became known, it was not possible to keep people from asking, what right have employers to profits? For this reason a popular agitation began, having as its basis the thought that this fund should go to the laboring population in whole or in part. In this way English opinion became steadily socialistic in sentiment. There were more complaints about the evils that industrial life brought, and less about the evils connected with nature. The theological viewpoint was replaced by the economic, and reformers were compelled to find some new origin for the evils about them. Is it any wonder that they viewed the industrial system as the source and cause of social injustice? Their sentiments, however, led them to favor two doctrines out of harmony with each other. One was that labor is the source of wealth; the other, that surplus profits should go to the laborers in whole or in part. If the socialists accepted economic optimism and admitted that labor was not the source of wealth, they would have no basis for their sentiment. If labor does not produce wealth, then why feel a strong interest in the oppressed laborer? On the other hand, if there is no surplus, as the pessimists claim, there is no basis for sentiment. The doctrine that capital is produced by labor and that capital is undivided profits cannot be brought into logical harmony. The result is an inherent contradiction that the early English socialists could not overcome, and hence they failed to impress themselves on national thought.

The successful thinkers and actors of the following epoch were men who appealed to class consciousness and to local sentiment, and thus by gaining for themselves a definite constituency, have been lauded as thinkers far above their real merit. Cobden's influence is not due to his appeal to universal principles but to the fact that his ideas favored the commercial classes of England. He thus paved the way for economic orthodoxy. Carlyle's appeal is not to commercial England but to aristocratic England. Bismarck appealed to race hatred as plainly as Marx appealed to class hatred. Carey was also a good fighter, who denounced English industrial development as vividly as did Marx. The difference between the two lies in the fact that Carey was optimistic, where Marx was pessimistic. The economic harmonies of Carey have as clear an economic basis as the pessimistic dogmas of Marx. If one is an economic interpretation of history, the other is also.

All these views are a part of one general change. Modern industry had

disturbed the relations existing between European races and industrial classes. A struggle for a new adjustment was inevitable and has been going on for sixty years with unabated vigor, for in such an epoch the mild optimists of the earlier epoch were out of place. We are so used to the new methods that we smile when peace, harmony and coöperation are spoken of. The childlike faith of the following passage seems unreal. Yet it was once the belief of a group with broad interests and high hopes. It shows the gulf between them and Marx better than a volume of words.

"But let no one imagine that so desirable a condition can be attained, except by a complete revolution in the principles and practices of society; to be effected, however, in peace and order, and with the entire concurrence of all parties concerned; for violence is utterly opposed to the spirit of the new system, by which, in future, it is proposed to carry on the affairs of life.

"The Social Reformer,—strong in his conviction of the everlasting, saving truth, that the character of man, in all countries and climes, and under all conditions, is, at every period of his life, the result of his original organization, and of the influence of external circumstances (mostly from under his control), acting upon that organization,—has the most unbounded charity for the convictions, feelings, and (necessary) conduct of all men; and his constant and unceasing endeavor therefore is, peacefully to withdraw all those circumstances which are known to produce evil, and to replace them by those only which are known to produce good to the human race. He discards all force and delusion, for these will not serve his holy cause. Clothed in the panoply of truth, he goes forth to do battle with error, relying on the powers of moral suasion and kindness alone, as the only agents capable of effecting a revolution so glorious and so God-like." [1]

IV

The Economic Marx

The preceding chapter pictures the state of economic thought when Marx arrived in England. We thus get the background from which Marx developed and a method by which his contributions can be separated from the tendencies of the age and from the achievements of his contemporaries. Marx was a German reared in the atmosphere of political revolution, and then immersed in an English environment where the struggle of classes had displaced the older race struggles still dominant on the Continent. It is interesting to see how quickly Marx seized on the salient points of the new situation and converted a philosophy designed to settle English industrial problems into a mechanism to promote a revolution in Germany. In this change two initial steps were needed. The basis of English thought in natural theology must be replaced by the material view then prevalent in Germany. Sentiment and theology were to be excluded and a social philosophy developed that would stand the test of modern criticism. This is

[1] William Thompson *The Distribution of Wealth,* pp. xii–xiii.

what Marx means by scientific socialism. The second change was in the opposite direction. The early socialists had made their appeal solely to reason. They expected to convince employers that better conditions and higher wages were industrially advantageous and thus make a transition to socialism with the assent of all industrial groups. This harmony of interests Marx replaced by the theory of class struggle. Revolution was to do what the slow working of economic law had failed to accomplish.

In the first of these doctrines there is little unique in Marx's position. Materialistic thought had already made great headway and was promoted by several strong thinkers. The second also was in harmony with the trend of events. The industrial revolution had made so many alterations in the position of races and classes that a new equilibrium could be reached if at all only after a painful struggle. It was useless to ask a race in a new position of economic advantage to forego its benefits and equally futile to expect an old established class to accept tamely the loss of political power and of social position. A new control in the political and economic world had to be established by a struggle that was to last for fifty years. Marx saw the nature of the coming conflict more plainly than his contemporaries and by his emphasis of class struggle did much to change the center of thought from the political struggles of the past to the economic struggles of the present. What nation should survive was an old problem. What class had the power of survival was a new way of stating the opposition of interests which all felt but no one before Marx had fully expressed.

It is difficult to follow Marx's development because his early statements are meager and the later ones are more tradition than fact. His earlier thought, as I interpret it, was sociological in character while his later thought was economic and revolutionary. This means that he first put an emphasis on a material interpretation of history and hoped to show that the laborers were the surviving class into whose hands society was to come. Such a transition of thought would be easy to make and that he did make it is borne out by many contemporary facts. This position, however, became untenable through the rise of the theory of evolution. Darwinism does not prove that the world belongs to rabbits. It proves that rabbits belong to foxes. Such an evolution could not take industry out of the hands of the capitalists; it would put the laborers more completely at their mercy. Had Marx not seen this he would have spent his time on some book emphasizing the material concept of history and thus would have ended not as an economist but as a rival to Buckle.

Events, however, went too rapidly for so slow a movement of thought. Revolution was in the air. It never seemed so strong nor so widespread as in 1848. Every one feared another French Revolution and believed a clash was at hand that would settle whether conservative or radical was to control the destinies of England. If the political control of a long-established aristocracy could be wrested from them, why could not the economic control of the capitalists be likewise overthrown? To create the basis for this change demanded a new economics. Sentiment might be a force in an

upheaval but it could not bring on an industrial reorganization helpful to the workers.

That Marx had such a thought is shown by his long continued attempt to reconstruct economic theory in harmony with revolutionary concepts. His *Capital* is a monumental endeavor to reduce to harmony a group of conflicting doctrines that did not thrive in English atmosphere. The theory of progress through capitalistic control had gained an ascendancy and a unity hard to break. Revolutionary economics must seek its basis in some other quarter. To this new position three doctrines are necessary: that there is an undistributed surplus; that this belongs to the laborers, and that in some way capitalism will break down, thus enabling the laborers to come into their own. The antinomy of socialism lies in the opposition of the first two propositions. If there is a large undistributed surplus, its origin has some other source than labor. If wealth is not the result of toil, the workers have no superior claim to it. Sympathy for the laborers can arise only when toil is the source of the produce annually distributed by the economic process. Deny the existence of a surplus and there is nothing to contend for. Make it emphatic and the weakness of the workers in an economic struggle becomes apparent.

Such is the problem of Marx as I see it. His admirers would put it in another way. They fail to distinguish between what Marx did and what had been done for him by the earlier progress of economic thought. Professor Seligman bases his claim of Marx's originality solely on his presentation of an economic interpretation of history. Professor Small is more enthusiastic. He calls Marx the Galileo of social science. This estimate is interesting because ten years ago Dr. Small would doubtless have named Auguste Comte as the hero of social science. Sociology has undergone a transformation during the last decade by which it has ceased to be a history of civilization of the type Comte originated and has now become a theory of race and class struggle. "No one," Dr. Small tells us, "gets through a primer of social science to-day without learning that class conflict is to the social process what friction is to mechanics." This brings sociology and socialism into harmony and creates a common basis and a common faith. It is one thing, however, to assert the importance of Marx to sociology, and another to attribute to him a like originality in economics. If Dr. Small had connected the history of the theory of profits with that of surplus value, he would not have called the earlier economic statements of surplus value "rudimentary." If he had taken Mill's *Political Economy* into account, he would not have found Marx original in asserting that laborers and capitalists are "sharply distinguished and precisely divided classes." Every theory of distribution from Adam Smith's time had stated this assumed differentiation based on the presence of three industrial classes in England.

The originality of Marx may be brought to the test in another way. Dr. Small asserts that socialism is ninety per cent Karl Marx and ten per cent his followers, thus leaving no place for his predecessors. Then Dr. Small

goes on to say, speaking for the present age: "We assert the universal fact of class conflict as strongly as he did. We assert the universal fact of cooperation more strongly than he did." This implies that class conflict is the older doctrine and that the belief in coöperation has its origin in later times. But why not give credit to the earlier socialists who did so much to promote coöperation? Do we assert the universal fact of coöperation more strongly than Robert Owen did? If Dr. Small had stated the real order of the progress of thought as from coöperation to class struggle, and not from class struggle to coöperation, it would have been apparent that the Galileo claim was not tenable. From struggle to coöperation is progress; from cooperation to struggle is a backward movement. To see through a glass dimly may be a virtue but to shut one's eyes to the light is a crime. Did Marx have before him the benefits of coöperation and consciously ignore them? Is the man who under these conditions resorts to conflict a hero or a demagogue? As we decide these questions we settle the claims of Marx to priority and to immortality.

A more valid statement of Marx's claims may be found in Cross's *Essentials of Socialism*. He bases scientific socialism on nine doctrines: (*a*) The evolution of society; (*b*) the economic interpretation of history and the doctrine of class struggle; (*c*) the Marxian labor theory of value; (*d*) the Marxian theory of surplus value; (*e*) the socialistic explanation of crises; (*f*) the right of labor to its full product; (*g*) the theory of the increasing concentration of industry; (*h*) the theory of increasing misery; and (*i*) the catastrophe theory. From these we get a glimpse of the real problems with which Marx dealt in his book on *Capital*. These doctrines are not mere commonplaces. They are matters of long standing dispute and are still open to discussion.

The real difficulty of founding a revolutionary economics to displace the harmonies so much amplified by early economists is made even clearer by an additional list of discarded economic doctrines. They show the difficult position in which Marx found himself when he sought to revolutionize economic thought.

The doctrine of overproduction.
The transformation of money into capital.
Labor checks in the place of money.
Labor as the source of wealth.
The elimination of small producers.
The growth of landed estates.
The fall of wages.
The failure of coöperation.
The crushing of trade unions.
The increasing severity of industrial crises.
The increase of unemployment.
The rapid growth of population.
The relative increase in numbers of the proletariat.

The abolition of interest.
The passing of competition.
The right to work.

I have not stated these propositions to discuss or to refute. They show the task that Marx undertook when he attempted to reconstruct economic theory. Can they be blended into a coherent scheme or are they a series of contradictory propositions that no thinker can harmonize? They readily fall into two groups. The one turns on the theory of class conflict and its force in creating social progress. Such propositions are sociological in character and since Marx's time have been incorporated in the science of sociology. I shall not discuss them because they lie in a disputed realm where differences of opinion are allowable. Sociology and economics have yet to wrestle for the supremacy and in the meantime Marx should have what credit comes from the fact that he anticipated the trend of events that gives sociology its present place. But this does not give him standing as an economist. To show that progress comes through race and class struggle is one thing; it is quite another to show that wealth grows through the exploitation of labor, or that its source is to be found in the toil of the proletariat. Has he proved that money can be transformed into capital, or that competition is decreasing? Have the trade unions been crushed and is voluntary coöperation a failure? Have landed estates grown in size and have wages fallen? It is with these problems that Marx wrestles in his *Capital* and he failed to solve them just as other would-be economists before and since his time have failed.

These propositions are not new to the American public. They have been up for discussion in a dozen presidential campaigns and they will doubtless reappear until a sound public opinion replaces the confusion now prevalent. The difference between Marx and the American radical does not lie in the positions taken but in the remedies to be applied. All of the elements of the catastrophe doctrine have been frequently amplified in the discussions of paper money and in the literature of protectionism. The catastrophe of hard times can be remedied by a free use of paper money, said the one group, while the other said that protection was the cure of low wages. Marx has another remedy but no new arguments, nor did he discover new defects in capitalism not found by his predecessors. From the arguments used in a campaign for state socialism, a returning ancestor might imagine that the dispute was about paper money. Put "capital" in the place of the "money power" and the fervent orations of to-day would have been understood forty years ago. Our ancestors would be familiar with all of them; they would be puzzled only about our remedy.

Had Marx succeeded as an economist, the position of the contending groups would be radically altered. As it is, every doctrine claiming that progress comes by slow evolution has gained ground. Many theorems can now be proved that were mere matters of conjecture and prophecy in 1848. The change from the meager data of that age to present attested facts shows

that Marx was a bad theorist and a worse prophet. Socialism is either sociology or economics. As thinkers, socialists must get into the one group or the other and as they choose they must accept the premises, the logic and the conclusions of the group they join. The compromise between sentiment and thought is in the future, and the credit for the new harmony belongs to some still unborn thinker. As there is no definite socialistic thought apart from its sociological postulates so there is no socialistic program. Each new wave of socialistic sentiment sets up some new goal or suggests some new compromise with capitalism. There are as many of these as there are fluctuations in the industrial situation that produces them. As an arouser of emotion, socialism is a success, but in the formulation of thought, it is failing exactly as Marx failed. In the meantime capitalistic production has increased the stability of industry and reduced the suffering coming from famine, contagious disease and the lack of employment. It has shown the power of voluntary social organization and has justified the hopes of Adam Smith and Robert Owen that coöperation could gain a victory over national, local or class interests.

V

Types of American Socialism

During the last century socialism presented itself in two radically different forms. One of these, represented by the early English writers, is called sentimental socialism because of its opposition to misery, or voluntary socialism because it appealed to voluntary organizations rather than to the coercive power of the state. In contrast to this is the Marxian socialism appealing not to the coöperative spirit, but to fear, coercion, class and race hatred. Revolutionary ideas were never so widespread nor seemingly so dangerous as when Marx began his agitation in favor of the toilers. Since 1848 evolution has replaced revolution and thus caused a radical alteration of social methods and programs. We have now had sixty years of this newer development and we should base our judgments of it on current facts, not on antiquated history. We can thus measure the successes and failures of the several types of socialism now influencing American opinion.

In its early history, state socialism represented the demands for the nationalization of industry on the one hand, and an equality of wages on the other. Neither of these ends has been attained, nor are we any nearer their attainment than we were sixty years ago. State ownership now means not the abolition of capitalism but the equalization of profits. State railways mean small profits on transportation and larger profits to the transporters. An increase of profits has gone along with this movement and in no way has the development of capitalism been interfered with. There is, however, another form of socialism not yet harmonized with capitalism. I will call this movement street socialism because it represents the attitude of the toilers who feel their interests opposed by present tendencies. It

is the emotional reaction of the oppressed classes, and is bound to take more vivid and forceful forms until it either succeeds or fails. I do not venture to predict the outcome, but it is apparent that the group is divided into two antagonistic classes, one demanding state action, and the other, direct action. Between the two are irreconcilable differences which are bound to express themselves in the conflicts of the future. But even if the two groups remain united, they can represent but a minority of the American people. From them, there is no danger of social revolution. They must either disappear in a hopeless struggle or be transformed and incorporated into society.

Socialism is, therefore, not an anticipated evil but an intense form of social activity. During the last sixty years the individual has been lost; the group is now everything. While there has been an effective demand for the equalization of profits, there has been no strong movement for the equalization of income. The changes, therefore, mean that the small capitalist has gained an advantage over the large capitalist on the one hand, and the laborer on the other. There has, however, been a steady rise in profits and an increasing socialization of capitalism. There has also been a change of emphasis from wages to the improvement of objective social conditions. The non-Marxian attitude has, therefore, won out. Marx may continue a myth and a terror to the uninformed, but the type of thinking he introduced belongs to the past rather than to the present. In spite of the earnest efforts which he and his co-workers have made, a class consciousness has not been aroused. The only nation of which the contrary seems to be true is Germany, where the massing of the laborers in one group is due more to political oppression than to economic exploitation.

Voluntary socialism, however, has succeeded to a far greater degree than has the Marxian program. In two important respects, it has failed. One of these is agricultural communism. The second failure is that of profit sharing. Some schemes for profit sharing have been moderately successful; it may be true in the coming age that profit sharing will really become important, but as a whole, it must be regarded as a failure. In other fields, however, success has been marked,—probably more than elsewhere in what can properly be called municipal trading. Neither of the earlier forms of socialism foresaw the future of cities and consequently did not realize the problems that the growth of cities would bring. Municipal trading must be regarded as voluntary socialism because each community elects what forms of coöperative enterprise it will support. It is also plain that municipal socialism is not opposed to capitalism, but is really an extension of it. It is a scheme for the equalization of profits because it results in an extension of the power of the small capitalist.

The earlier socialists thought the field of socialism to lie in schemes for elevating the toilers. Such schemes have failed. If they had thought of their projects as a means of socializing the capitalists, they would have been the prophets of a new epoch. The striking fact of recent industrial organization has been the socialization of the groups that control them. The system, the interests, the money power, the trusts have bad features,

but they represent the socialization of the groups interested in particular fields. The growth of large scale capitalism has resulted in the elimination of the unsocial capitalist and the increasing control of each industry by a socialized group. This group may not represent public interests, but it is a voluntary organization with intensely coöperative spirit. No one to-day can succeed in industry who does not attach himself to some well-defined industrial group. Every city, likewise, has many social groups working for its improvement; even the trades unions succeed as voluntary organizations. College spirit is another manifestation of the same tendency and is becoming one of the social forces of the present. Philanthropy, in its constructive forms, is also voluntary and represents the growth of social sentiment. There is no form of self-improvement, of recreation, or amusement, that does not follow the same general lines and appeal through voluntary means for the organization of the people interested in each field. This socializing tendency has produced great changes and will increase in intensity during the coming epoch. There is no probability, therefore, that voluntary socialism will be displaced, nor is its importance likely to be diminished by any change in state control.

With this marked change in the form of coöperative movements has also gone a reorganization of our social sentiments. To-day, sentiment shows itself either as race and class hatred, or altruistic enthusiasm. At bottom altruistic sentiment is the feeling of a capitalist expressing itself in sympathy for the laborer. This desire of upper class men to improve the conditions of the lower classes is a radically different phenomenon from the pressure exerted by the lower classes for their own betterment. The lower class movement stands for the control of the state by themselves in their own interests. The upper class movement directs itself against the bad environmental conditions preventing the expression of character. Every lowering of the standard of life, and every increase in the misery due to objective conditions is seen to mar character or to prevent its expression.

This upper class movement has expressed itself in various ways, none of which is adequate to represent its real force. To call such men Utopists is to misrepresent them. To call them sentimental merely emphasizes one part of the movement. Historically they could be called literary socialists because most of their writings have been put in a literary form. Neither of these terms expresses the current movement because they do not call attention to the great change that is taking place in the college world. Better than anything else, this altruistic movement could be called collegiate socialism because universities and colleges are the centers of its propagation. College life is now emotional rather than rational. Fifty years ago college students argued; to-day they shout and sing. A corresponding change has taken place in the teaching. The old economic teacher had a dozen or twenty students in his classes with whom he argued from rational premises. Elementary politics and economics are now taught in large classes. No one can argue with one hundred students. My experience is that forty is the upper limit, and it is difficult when the classes go above

twenty. This means that the college professor must appeal to the sentiments and emotions of his hearers. He must orate rather than argue. The emotional appeal also demands that he put before them sentiments most likely to be active in the minds of his pupils. Three words more than anything else represent the possibilities of arousing enthusiasm,—graft, misery and exploitation. A type of emotional activity is thus developed in college life that is potent in socializing American thought. Its moral program can be summarized as the regeneration of character and its economic program is the abolition of poverty. State socialism has as its political program the square deal and as its economic program, the equalization of profits. These two programs form evolutionary socialism, which is the same as progressive democracy. There is no difference at the present between socialism and democracy. When a progressive democrat maps out a program, it is the same as the program of an evolutionary socialist. The two views are bound to coalesce and from their blending a new political party will arise giving a socialistic trend to American development.

The power of socialism is but partially revealed in this movement. Distinct from and yet blended with it is a socialism revolutionary in character. It may be called sociological socialism because sociological concepts are at its basis. Social thought, we are told, is impressed by the action of a dominant class. Any change in social control would then result in a revolution of social traditions, laws and morality. If institutions have been imposed by the wealthy for their own advantage, socialism by overthrowing capitalism would bring a new group of social institutions, displacing the now dominant economic morality. This is the sociological argument for revolution. A new motive for a revolution is thus introduced which is not a part of the collegiate socialism already described. Many dislike the restraints of current economic morality and of the social institutions that enforce them. It is thus made to look as if economic restraints were temporary expedients rather than permanent necessities. Of these the most vital is the sex restraint that economic progress has enforced. Each advance in family life has added to the severity of this pressure until sex motives are in open war with the dominant morality. The revolt against sex restraint is widespread and is promoted in indirect ways more effectively than if openly stated. It is especially prominent in magazines, novels and the new drama. As literature becomes social, it takes this form and carries with it a revolutionary attitude that may become dangerous. Sex freedom is too deep a force to yield without a struggle. The issue between sociological and economic premises will probably come here earlier than elsewhere, but come it must and the sooner the better.

VI

An Interpretation of John Stuart Mill

Before proceeding to an analysis of economic theory, the influence of John Stuart Mill in shaping economic thought must be considered and also

it must be seen in what relation he put himself to the two economic schools of his time.

One of these groups was the sentimental economists whom we have already described. The second group is known as the logical or orthodox economists from the fact that they appealed to logical method in developing their theories. In reality, however, they were as sentimental as their opponents. The appeal of the Utopists was to general social interests. Neither nationality, class nor personality obtruded themselves in their discussions. The success of the logical economists was due not to their logic but to the dominance of the capitalists whose sentiments they voiced. The growing influence of the capitalistic class was opposed to the Utopian economists because they demanded improvements in the conditions under which laborers lived and worked. This, if carried out, would mean a fall in profits. On the other hand, the capitalists were interested in free trade, but more than anything else in the capitalistic control of the nation. Anything, therefore, that emphasized the importance of capital to social progress had their ardent support.

But why did Mill become a defender of logical economics when his real sentiments lay with the opposing school? In solving this problem, it is fortunate that Mill wrote a truthful autobiography and also that his books are so accessible that the growth of his ideas can be readily traced. Until 1832 Mill's interest was primarily in political reform. He was one of those who helped to bring about the reform bill of that year. For the next ten years his interest was in logic, not, however, logic of the older type, but inductive logic, and, if we accept his statements, social logic, for the last section of his logic relates to the premises and concepts of social science. If we take this final section to his *Logic* to indicate Mill's anticipation of what was next to be done in social science, it is plain he intended to proceed on an inductive, historical and sociological basis. Why did not Mill carry out this plan so clearly expressed in his *Logic?* Why did he endeavor to make economics a deductive science instead of making it historical and inductive? Something must have happened between 1842 and 1848 to change his attitude, and to cause him to rehabilitate a method that he had so skilfully overthrown.

To find the cause of this change one must look into the current discussions to see the position in which Mill found himself. He had expected to proceed historically, but he found that his favorite doctrine could not be historically defended. The way to find what use was being made of historical proof at that time is to read the works of Carey. His method consists in taking a mass of heterogeneous illustrations from every clime and age, and aggregating them together to prove pre-conceived doctrines. He has no hesitation in traversing the world from America to India, or history from the present day back to Adam, to pick out illustrations that seem to enforce his doctrine. This is historical sociology in its crudest form, but, at the same time, it was very effective, for it served as a basis for the protectionist doctrines then developing. Its influence, therefore, was tremen-

dous. I do not see how free trade or sound money could have been defended on historical grounds. No one of Mill's favorite doctrines could be thus defended. Either he must give up the economics to which his traditions bound him, or he must abandon the method he had outlined and revert to the methods of his father and Bentham from whom his education had come.

A second method of utilizing history is represented by the German economists. They avoid the crudity of Carey's position, but do it at the expense of general principles. German thought is intensely national, and has as its basis the concept of the superiority of the German race. Accepting these two premises, good history is German history. Everything that does not incorporate itself into German thought is bad doctrine. There is a conscious depreciation of other races especially of the English and the Jews. This makes an historical movement of thought which is correct in so far as German thought represents the growth of civilization but is erroneous as soon as progress of civilization ceases to be German. Such an attitude it would have been impossible to introduce into England because the English did not have a like concept of their national continuity and superiority. The best statement of the German viewpoint is to be found in a recent book written by an Englishman, but one who has thoroughly indoctrinated himself with German concepts. This is Chamberlain's *Foundations of the Nineteenth Century*. In it is found the race emphasis so telling in German thought, and the contrast between the German and other national groups. This method of procedure was clearly out of Mill's reach. He was forced to abandon such schemes since they would not appeal to the English public in the way that logical concepts did. Between English historicalism and English logical method, there was really no choice.

There was a third alternative which doubtless Mill saw but was also unable to carry out. This viewpoint is represented to-day by the theories of Marx. It rejects the capitalistic premises but retains the pessimistic part of Mill's philosophy. It is German thought over again except that the doctrine of continuity is the continuity of the laboring class, and not the continuity of the German race. Mill had drawn the contrast between capital and labor but he was unwilling to carry it to a point that would lead to the exclusion of one or the other.

It is plain that all these historical methods were, in some form, in Mill's mind when he decided to abandon historical economics and resort to a logical defense of fundamental truth. The genesis of logical method as understood by Mill and defended by subsequent economists is primarily based on the doctrines of Newton and Bentham. The concept of one fundamental law controlling all social phenomena is derived from the law of gravitation, but the method by which this could be used as the basis of economic thought comes from Bentham. Bentham assumed that men were controlled by two motives, pleasure and pain, and that all of their acts were consequences of these two forces. The transference of this idea into economics comes through a process of substitution by which in the place of pain is put economic cost, and in the place of pleasure, the value of eco-

nomic goods. Goods are thus made the center of economic discussion. They sell for their costs; they are bought because of their value. From these premises is derived the doctrine that costs equal values. Cost is labor. If the quantity of labor equals the quantity of value, then all values have an economic justification. From this premise comes a better justification of capitalism than any historical deduction could give it. The subsequent use of calculus by Jevons has disproved this conclusion; to-day no one can claim logical support who assumes that costs and values are equal. But in Mill's time no one realized how subsequent argumentation would turn. Their education did not include calculus and their sentiments were capitalistic.

Even if Mill did emphasize logical method, it was impossible for him to make his social system logical. No discussion is clearly carried through to its logical consequences. He starts his argument from logical premises and draws logical conclusions in the first sections of each chapter. He then shifts his viewpoint until in the final sections his social views stand out prominently. An examination of his method makes it plain that his final conclusions are not deductions from his original principles but are due to the insertion of new ideas and a new point of view into a discussion which if logical would have carried Mill to opposite conclusions.

Our present viewpoint is more serviceable than the confused view of Mill's time to show the defects of his method. His choice lay between the crude historical method familiar to the English public and a resort to deduction in harmony with the views of his contemporaries. We have new possibilities because of better statistics. Deductive conclusions now have little weight unless use is made of present facts to verify them. We thus have a check on dogmatic reasoning that was not available to Mill. The recognition of an economic interpretation of history creates the same sort of a check to loose historical deductions that the statistical method gives to deductive thought. We should not blame Mill for not foreseeing these developments of method. The blame is only to those who in an age with better methods neglect to use them.

The logical method, however, has been of importance in two respects. It has emphasized both rent and profits and has, therefore, brought out the difference between earned and unearned income. It has, however, failed in various ways because Mill's thought is based on two antagonistic economies,—the agricultural economy of Adam Smith and the commercial economy of Ricardo's time. In an agricultural economy rent is contrasted with wages. Rent, therefore, becomes an unearned increment; wages include the return for all human efforts. Such a contrast is clear and the conclusions drawn from it are sound so long as the deductions are made in regard to a purely agricultural economy. In the commercial economy, however, rent is lost sight of. The opposition is between profits and wages. In this contrast wages do not include all efforts of industrial society, but only the efforts of the toiling, underpaid workers. Within profits are included all of the industrial efforts of the capitalistic class. In the commercial economy one

cannot, therefore, say that wages are the reward of labor. They are the pay of inefficient workers. Sometimes Mill uses labor in one sense, sometimes in another. Sometimes wages are but a class reward. Sometimes they are the pay of all workmen. So long as this confusion remains, no clearly defined theory of distribution can be developed. Mill and his followers slipped back and forth between the two viewpoints and their conclusions are invalid because of the vagueness of their premises. There was no logical attempt to restate the theory of distribution until Henry George's *Progress and Poverty*. There we find the famous formula: *Produce = rent + interest* + wages. If these three terms are carefully defined, there would arise a logical view of the problems of distribution. This later stage of development, however, does not belong to Mill's epoch, but must be considered in a chapter by itself.

VII

The Failure of Theories of Distribution

It is impossible to understand either the theories of distribution now prevalent or the sentiments that lie back of them without giving attention to earlier industrial societies. In primitive times the contrast was between lord and slave or lord and serf. Later it became a contrast between landlord and tenant and then between the leisure class and a working class. If we regard these various contrasts as creating economies, it is proper to speak of a slave economy, a cultural economy, an agricultural economy, a commercial economy and an industrial economy. In all these economies, a two-fold division of society exists, one class doing the work and the other enjoying the profit that comes from the industrial situation. In this earlier state, the contrasts in income were between surplus and cost, between profit and expense, and between public revenue and private gain. The first of these alternatives was advocated by the dominant leisure class, the other by the industrial classes. It was natural, therefore, for the industrial classes to give an emphasis to labor as the source of wealth and to wages as the one rightful income.

In modern societies the problem arises of transforming wages and labor from sentimental feelings to economic concepts. The difficulty in this comes from the fact that in a primitive economy there are only two classes and only two forms of income,—the earned and the unearned. When wages are made synonymous with earned income its claims have both sentimental and logical justification. In an industrial society the capitalist also earns an income. It is, therefore, impossible to use the term "wages" in the sense that it was used in agricultural nations. In an industrial economy toil is disappearing. Progress is measured by the displacement of the unskilled toilers and not by the increase in their income. The problem in distribution, therefore, is this: are wages in a modern society a fund having a natural basis?

The three-fold division of society is derived from the three classes present

in England when economics arose. If there are a landlord class, a capitalistic class, and a class of workmen, a three-fold division is necessary. If one of the three disappears only a two-fold division will explain the facts of distribution. Which one is to disappear depends on the kind of economy dominant in each nation. A pain economy or a downward pressure unites landlords and capitalists, thus creating a leisure class as opposed to the working class. In a pleasure economy, the toilers are eliminated or transformed into a higher class, while the remaining classes blend into unity combining leisure and work in agreeable ways. The three-fold division, therefore, is logically and genetically defective. The logical division is either surplus value and wages, or rent and wages. Genetically, however, it can be said that rent tends to disappear, profits tend to disappear, interest tends to disappear, or wages tend to disappear. All four of these propositions have some proof. The first two, however, are true of a static economy and the last two of a dynamic economy. Should society become static, there would be no rent or profits; the whole income would be divided between interest and wages. If a dynamic economy should continue, interest and wages would tend to disappear and the whole income of society would be distributed as rent or profits. Work would be a pleasure, and the providing for the future a joy. Of course, this is Utopian, but it represents tendencies. In any society either profits and rent are growing and interest and wages decreasing, or wages and interest are growing and profits and rent decreasing. This, put in another way, affirms that rent represents the aid that nature gives to man; profits represent the aid of invention and character. Three forces, therefore, tend to the improvement of mankind,—improved nature, improved industrial mechanisms and improved character. The future Utopia will have little toil, and much leisure.

The origin of current theories of distribution was more accidental than designed because the three-fold division comes from the writings of Adam Smith in which it is presented not as a theory of distribution but as a theory of prices. It was the elements of price and not the factors in distribution that Smith had in mind. Prices rose, he thought, as rent, profits or wages increased and fell when one or more of them was decreasing. He assumes that progress means a fall of prices, and that families gain their advantage by the lower price of goods bought. Under these conditions, no one can obtain an advantage over others through prices because his income accurately represents his costs. The whole gain of society is measured by the fall of prices. The confusion arising from reasoning based on these premises is due to the fact that there is no name separating this economy from societies which have other determining forces than those of price. Price has no adjective form. The result is that economists have reasoned about prices, and then have applied their conclusions to an industrial economy. They have also talked about an economic man when really their logic called for a man whose motives were determined by price. To prevent confusion, I shall speak of a price economy and of a price man. In this way we can distinguish the narrower economy determined by price from the broader

economy determined by industrial conditions. In this price economy, the population gains by cheapness and not by the rise of income. What men pay represents the ultimate difficulty of attaining goods. In this society is neither unearned income nor monopoly. The dominant law would be that of supply and demand and the ruling tendency would be towards lower prices. I say this because no law can be derived from price changes that would show whether wages are increasing or decreasing. Additional facts must be added to those of a price economy before funds, whether of wages, profits or rent, can be isolated and contrasted. Some supplement to the laws of price is necessary to create theories of distribution or to enable ecnomists to divide income into funds, be they many or few.

During the Ricardian epoch, the laws of nature are made to supplement the laws of price and to create theories of distribution. These supplements take two forms, one a materialistic, pessimistic attitude, due to the assumption that nature is failing. The other in an optimistic form contends that income is increasing and with it a progressive social state is forming. In the first group are the law of diminishing returns, the law of population, the law of rent, the law of industrial concentration, the law of increasing misery, the iron law of wages and the law of physical retrogression. All these laws have a physical background and in them the basis of modern theories of distribution is to be found. In passing from the pessimistic to the optimistic attitude, emphasis is given to another group of doctrines based on genetic tendencies which reveal themselves in history. These doctrines include the disappearance of rent and profits, the displacement of labor by capital, the rise in wages, the fall of interest, the betterment of industrial processes and the appearance of new traits in man. It should be remembered that all such laws have a basis somewhere else than in the theory of prices. The laws of distribution, therefore, depend either on the materialistic, pessimistic concepts of Ricardo and Marx, or on genetic laws of social progress. One or the other is to be found in every writer on the distribution of wealth.

The defects in the current theories of distribution are again made clear by questioning the reality of the funds into which income is divided. From the general principles of industrial progress, it is inevitable that both rent and profit should arise. It raises another problem, however, to say that a definite amount is set aside for the payment of wages. There are in reality three wage doctrines of this sort contending for supremacy—the doctrine of an increasing wage fund represented by the American economists from the time of Carey to the present, the doctrine of a stationary wage fund represented by the classical economists, and the doctrine of a decreasing wage fund presented in the writings of Marx and Henry George. It should be noted that proof of a rising statistical wage is no proof of an increasing wage fund. The statistical wage is shown by combining the stationary wage of the industrial toilers and the rising wage of efficient workers. This may give a rise in the general average, but it does not prove the objective existence of a wage fund.

Wages are not a fund having one origin, but the complex resultant of many forces. To understand the organization of society, the workers who use machines must be contrasted with the toilers whose industry results in the transformation of nature. Machine tending is not toil unless the hours of work are abnormally extended. The transformation of nature usually is toil but the men of this group represent a decreasing proportion of the whole industrial society. Workers of the first class, get a wage which should be included under rent rather than under wages because it is a rent of ability. They also get a substitution wage, or what they would receive if they toiled instead of tended machines, and, thirdly, they get an organization wage, or what they receive from collective bargaining. These three elements, the wages of ability, the wages of substitution, and the wages of organization, form the basis of their income. The larger part of this wage must be regarded as either rent or profits. This makes the workers who receive it an integral part of a capitalistic society. They have as much interest in the growth of the social surplus as the capitalists have.

The toilers, however, do not even get a subsistence wage. A wage of a few hundred dollars a year is not determined by the needs of subsistence but by the physical endurance of those who receive it. Continue the pressure, and the class must die out. The downward pressure in wages equates itself by raising the death rate. Families on four hundred dollars a year have as many children as they please without increasing the population; the deaths equal the births. Likewise the upward pressure due to increasing standards of life gives another equilibrium, brought by the fall of the birth rate. At a family income of fifteen hundred dollars a year, the number of births does not exceed the deaths and hence population is again at an equilibrium. There is thus an equilibrium caused by a rising death rate and an equilibrium caused by a falling birth rate. One or the other must dominate, and as it does, the structure of society will be correspondingly changed.

These facts show the defects of the current theory of distribution. The real cause of its failure lies deeper. Social classes have their origin in struggle and between them no economic bonds exist setting limits to class aggression. Some class is always growing while its competitors are being forced to the wall. The movement towards better resources or into industrial centers is irresistible and ends only when the dominant group crowds out its competitors. Had the resources of the world remained static this tendency would have long ago been apparent. New resources and new centers have repeatedly disturbed this equilibrium and thus renewed the old struggle under new conditions.

To state these ideas in theoretical terms demands the use of contrasts not familiar to Mill and his contemporaries who recognized only two groups of laws,—the laws of price and the law of diminishing returns. The theory of evolution has made us familiar with a new group of forces. There is an evolutionary pressure leading to increasing returns as well as the devolutionary pressure called diminishing returns. There is also a social pressure

in favor of human equality that partially counteracts the effects of both evolution and devolution. These three pressures are ever in operation, each tending to produce its own individual effect in distribution. Because of them there can be no equilibrium of economic forces nor are there definite funds to be divided between the contending classes according to natural law. This failure of equilibrium makes a new treatment of distribution necessary.

VIII

A Restatement of the Theory of Distribution

Theories of distribution have been built on a common plan. The two elements are, first, the social classes into which nations are divided, and second, the funds into which income flows. Each social class is assumed to have its income derived from specific sources. Classes therefore have definite limitations to their income which prevent them from taking the income of other classes. Within each class there is also a law equalizing income. Profits and wages, we are told, tend to equality, giving just shares to all participants. This theory was a part of the economic harmonies so much admired by early economists and while modified is still generally held. It corresponds to the early English industrial development and has thus obtained a concrete setting, making the visualization of other theories difficult. In criticism of it the first question is: Are the traditional classes in England the outcome of social struggle or are they real economic groups? The second question is: Can there be an equilibrium between hostile social classes or must not each temporary adjustment be a compromise that is disturbed by new alignments of the contending groups? In other words, is all struggle within individual classes or is the real struggle between classes some of which are growing at the expense of others? In this case there cannot be economic funds setting bounds to class aggression. Some group is being forced to the wall, after which event a new alignment of interests creates new victims of the same process. Such at least is the theory of evolution, and by it the theory of class struggle has been strengthened. If harmony checks struggle, some compromise has been worked out between the discordant groups. Natural law forces a given action at all times and places. Compromise is temporary, local and subject to constant revision. Under which of these two heads does the income of industrial classes come?

In seeking an answer for these questions in America the observer finds a different alignment of groups from what the early English economists found in their day. America has no rent class. Land is an investment and its income is not distinct from that of capital. Few know what part of their income is rent and what profit or interest. Landlords and capitalists are thus blended into one class with common views and interests. While this blending has taken place a new differentiation has arisen among the laborers. The machine workers and city artisans have formed organizations through

which a redistribution of income in their favor has been forced. Below them are the toilers working with their hands or with crude tools. Their income is set for them by objective conditions. Workers and toilers in this contrasted sense are non-competing groups whose incomes arise from such different sources that any one name is confusing.

The application of English theories to American conditions can be tested by a review of wage arguments. No economist has said that groups of workmen could not acquire a super-wage. Both the existence of such groups and the power to perpetuate themselves were admitted. It was contended, however, that this super-wage was subtracted from a wage fund and hence its burden fell on other workmen. There could be no progress except by a rise in the average wage. The reasoning on which these conclusions were based runs as follows: If a given group acquired a super-wage, the rate of interest would be lowered by its payment. This reduces the margin between the income of the capitalist and his expenditures. The source of capital is frugality, which demands for its exercise an excess of income over expenditure. From this excess all increases of capital come. If it is reduced by the payment of a super-wage the increase of capital is checked and the growth of industry retarded. The natural increase of population would not be provided with work; the surplus laborers would be forced back into the established industries with the result that wages would fall.

I take issue not with the logic of the wage-fund theorists, but with their view of the source of capital. Capital, they said, is savings and comes from a reduction of the expenditures of the capitalist class. There must be a group with social standards less than their income to permit the increase of capital. I would say industrial capital arises from the undivided profits in newly-exploited industries. In them a super-profit exists, and from this fund the expansion of industry takes place. No one would deny that there is a super-profit in new industries and that in seeking employment for it the newly-acquired capital flows over into other industries and builds them up. Is, however, this source of capital the leading one or does the mass of new capital come from the savings of those who reduce their expenditures below their annual income? This is the real test of the two theories. If new capital comes from the super-profit of new industries, the super-wage of other industries does not fall as a burden on other workers but is a burden on profits. Super-profits become super-wages by a change in prices altering values in ways favorable to industries paying super-wages. The super-wage is thus a problem of prices the burden of which falls not on other workmen but on whoever loses through the resulting rise in values.

I would go further and assert that there is no interest fund because no equilibrium exists between the income and expenditures of the interest-receiving class. Interest is paid on investments in the hands of the inheritors of vested wealth. This class is not the source of new capital. Instead of their adding to capital the total of their investments is falling off and in each generation is replaced by the new inheritance bequeathed by the

founders of new industries. The holders of fixed investments are not a strong class held firmly in their position by the needs of other classes. They are economically a weak class losing to the benefit of other classes in every industrial contest.

The reasoning of the wage-fund theorists was a selfish upper class view of those who wished to pose as humanitarians without being so. Why should the receivers of a super-wage give it up so that the inheritors of wealth might save? If saving is needed could they not as easily save from their super-wages as the rich could from their investments? It is not necessary to raise this question because in the main super-wages are a burden on the super-profits of new industries. They fall partly, however, on all who must in consequence pay higher prices. Inherited wealth bears its share, the general consumer has his burden, and the toiling under class loses employment because of the slower rate of industrial progress.

The super-wage does not fall on any special class but is a general burden on prosperity. There is no fund set aside for a specific class except the subsistence fund of the toilers. Rent and profit are funds but they have no social classes to claim them. They are diffused through several social channels and fought for by every claimant of social advantage. Economic groups do not therefore have funds given them by natural law. They must enter the struggle for the general surplus, getting more or less as they succeed in the conflict that ensues. Each new equilibrium is a compromise lasting until some new alignment of social forces breaks it down; then come new adjustments but never a static equilibrium nor any fixed funds distributed by natural law.

The real struggle is not between two classes but between two forms of industry. Industry either exploits some general advantage, in which case its surplus is profits, or it exploits local advantage the resulting income of which is mainly rent. Centralized industries divide those interested in it into two classes, the controllers who direct, supervise or manage, and the machine workers upon whose activity the industry depends. The one class is interested in centralized profits; the other in personal super-wages. Between these two forms of income there are no fixed limits. Either can grow at the expense of the other. Every new struggle leads to a new compromise in which some advantage comes to the workers. There is no profit-fund that will check this advance nor is there a wage-fund to restrain the fall of wages where organization fails. Super-profits may become super-wages or super-wages may become super-profits. Peace and progress thus come not from natural law but from compromise, through which alone any working equilibrium is possible.

In the exploitation of local advantage another mode of distribution is worked out which unites the rent of situation with the super-wage of efficiency. A *working capitalist* is thus evolved, since local industry is too small and many-sided to permit of class differentiation. Such a capitalist does not think of his joint income as arising from distinct funds: he blends it by a recomposition of values into one fund and thinks of it as due to his

activity. His capital and his land are not distinct units but adjuncts to his personality. In this way a distinctive viewpoint is acquired that, while capitalistic, is opposed to that of centralized industry. To make a working capitalist takes about $5000 in capital which may be put into a farm, into local trade and industry or into personal efficiency through education. This means an income of from $1200 to $3000, a large part of which is rent, but which is regarded as wages by its participants. This class grows with the rise of rent and loses with the increase of centralized profits. A line can thus be drawn between the part of the social surplus which localities or professional men hold and the part which may be delocalized and depersonalized. In the centralized industries work and wealth are isolated. In the localized industries they are united.

Industrial evolution brings increased competition for the better grades of land and for the higher forms of personal service and thus raises personal and ground rents instead of lowering prices. If poorer land is brought into use by progress it means that the better land is being put to some higher use or that other industries are increasing their productive power. The loss through increasing rents is more than offset by the greater profit in other industries. When we recognize that rent is a lien on profits and not an indication of diminishing returns, we see that its growth is an index of progress even if it creates for favored individuals an unearned income. Poor land is thus discarded or put to some lower use. In a like manner the growth of the super-wages indicates an evolution by which the less efficient are crowded out or forced into less effective occupations. The disuse of poor land and the lack of employment of inefficient laborers is a part of every forward movement. Evolution brings out latent differences in both land and men and emphasizes the better at the expense of the poorer. It is a sign of progress to have differential incomes increasing. Evolution helps the better more than the worse.

These two pressures determine the natural distribution due to objective conditions. Social distribution counteracts the results of struggle in three ways: by taxation, by the organization of laborers, and by the conservation of life and resource. A measure of equality is thus secured but never enough to prevent the workings of evolution. Distribution is thus complex, following no one law. It is the net result of many laws all of which must be understood before a solution can be reached. Natural law is but an element in the final result. Its funds dominate in primitive distribution, but they fail to explain the facts of modern industry.

From these facts and the resulting modification of social classes a theory of distribution arises which may be stated as follows: There is but one social surplus for which all industrial classes contend and among whom it is divided not in definite funds but in parts altered by each new alignment of economic forces. At first this surplus becomes industrial profits through the increase of efficiency and the improvements of nature. Part of it is then transferred to a rent fund by the increase of local and personal advantage. Another part as undivided profits becomes capital, the return on

which is interest. The part used socially by the state and absorbed in its expenses is taxation. The part secured by workmen through organization or local advantage is the super-wage. The residual or pure profits is the share of centralized industry. In addition to this surplus there is a subsistence found for the toilers which may be inadequate for their conservation and in proportion to their numbers tends to decrease.

Such statements differ from those of the wage-fund theorists. They differ not less in the action called for than in the theory itself. The one view demands activity of the workers in securing their rights; the other gives them an income fixed by natural law. It seems simpler and less troublesome to have the laborers penned within bounds and to have their income handed out to them by fixed economic laws. In reality, however, the difficulties are thereby increased. The laborers will act in any case and if industrial relief is denied them whether by nature or man they will resort to political action to enforce their demands. The choice is really between a political socialism that would absorb all profits and such direct action on the part of laborers as will insure them a share in the social surplus. In the one case they act unitedly and are interested in the overthrow of existing institutions. In the other case they act as an industrial group and force such changes in prices as will permit of increased wages.

Every change in wages forces readjustments in values favorable to the industry in which it is made. The burden falls on the super-profits of new industries if profits are increasing more rapidly than wages. If, however, wages rise more rapidly than profits, family budgets are burdened by the excess, and a recomposition of budgetary values ensues. In this change the working capitalists are protected by their increasing personal efficiency. The budgetary losses thus fall mainly on those with fixed incomes; this means that it falls largely on inherited wealth. Practically, therefore, it may be said that high wages are a burden on centralized wealth enjoying super-profits, or on inherited wealth in the form of fixed income. These classes have no way to recoup their losses. High wages thus result in a redistribution of wealth to a greater degree than in a redistribution of income. The working elements of society gain at the expense of the leisure class. Socially this is advantageous even if it is wrought with much individual suffering. It is better to have economic law distribute income through group pressure on prices than to have the whole social organization upturned in a class struggle for social control.

IX

Practical Applications of the Theory of Distribution

Two important facts have been brought out; a large social surplus exists; its distribution is not determined by natural law. Less than a third of the income of the people of the United States has its distribution fixed by natural conditions. The rest of it is distributed by social laws.

This statement will not be readily accepted for two reasons. Many economists attached to the doctrines of natural law, dislike to see the old viewpoint disturbed. Another type of opposition is of more practical importance. I shall state it in the words of a reformer to whom I recently presented my view. His comment was that if my argument could not be refuted the result would be confusing. He admitted that if a man inherits ability and from it gets an income of five thousand dollars a year, his income is no more earned than if he inherited a corner lot. But the older viewpoint gave a decision as to how to increase public revenues. All this is thrown into confusion by any indefiniteness in the statement of natural law. One can no longer say, "Fix the rent of each farm or city lot and take as much as is needed for public purposes." This apparent confusion I admit, but I do not believe it indicates any ultimate confusion. The difference between the older and newer view can be put in this way. The earlier economists said that economics treats of the production and distribution of wealth. If economics is divided into two departments, the theory of distribution is the end of economic theory; and in it a decision must be made as to how income should be distributed. This view was simple and clear so long as production and distribution were thought to be determined by natural law. As soon, however, as it is realized that distribution is not determined by natural law, it must be replaced by views based on other principles.

A new definition of economics should run like this: economics treats of the production, distribution, control and consumption of wealth. After the theory of distribution is explained, theories of wealth control and of wealth consumption should be discussed. It is not, therefore, an objection to a theory of distribution that it does not settle the distribution of wealth if it is followed by other theories the joint effect of which is to give the needed decision. This position does not differ materially from that of Mill. He affirms the reality of social control and the importance of the consumption of wealth. He, however, regarded the generation of public opinion as not being within the range of economic theory. He says that human opinions "are a part of the general theory of human progress, a far larger and more difficult subject of inquiry than political economy." This was a good statement of economic theory in 1848, but it is not correspondingly true at the present time. The theory of social control is now well developed and economists can with confidence enter a field that Mill of necessity avoided. Another change must also be made to bring Mill's statement down to date. Speaking of the laws of the distribution of wealth, he says that they are a matter of human institution solely. "Mankind can do what they like with what they have produced and place it at the disposition of whomever they will on whatever terms they please." This is an over-statement. It is not true that public opinion has any such control over the distribution of wealth; it is true, however, that there are options in the distribution of wealth, and these options are of importance in economic decisions.

Three supplementary theories must be discussed before the distribution of

wealth becomes definite. There must be a law of prices, a law of progress and a law of social control. In each of these fields are opposing theories, one of which must in the end be accepted. As to prices, there is the theory of cheapness and plenty formulated by Adam Smith which makes the criterion of progress the reduction of prices. Opposed to this is the theory that prices cannot as a whole be raised or lowered but are altered to the advantage or disadvantage of particular groups. In the field of social progress utilitarian doctrines set up as a measure of progress the sum and distribution of happiness. Opposed to them is the evolutionary concept which assumes that progress is measured not in happiness but in the growth of new types and in altered social relations. Of social control there are five kinds. The oldest type is ancestral control which at present is mainly exerted through the church and the courts. A second type is wealth control best seen in leisure class privileges. A third is group control, by which I mean the organization of industrial groups so that they can alter the prices of the commodities they make. Industrial groups that can raise prices grow strong and survive; those that cannot, fail and break up. A fourth type of control is family control. That kind of a family perpetuates itself that intensifies the enjoyment of the goods its income permits it to buy. Intensive family life, therefore, is a measure of family control. The fifth type of control is coercive state action.

It is not likely that either ancestral control or wealth control will dominate in the future. The church and the courts have less influence; the leisure class is losing its power. Group control, however, and family control are growing and are in reality two sides of one problem. The group is the unit by which producers unite for the purpose of increasing prices. The family is the unit in which the same people unite to intensify their consumption. The two together make voluntary control, which it is to be set over against the coercive state control. The real choice of the American people lies between voluntary control and coercive state control. I shall not attempt to describe state control because this is already familiar to the public, but how voluntary control would operate needs description and its laws need enunciation. The central point of voluntary control is the budgetary concepts of the families that participate in it. This means that discussion must be shifted from distribution to family budgets and to this field I shall turn in the following sections.

Before doing so, however, it is necessary to point out the place where these doctrines will be brought to the test. From time to time commissions are appointed to determine the right of laborers to an advance in wages. These commissioners must have a theory of prices, a theory of progress, a theory of social control, and they also must make decisions in regard to the centralization of industry. One way of showing the practical application of these theories, is to state the views held by the Interstate Commerce Commission. In discussing the right of the railroad employees to a higher rate of wages, one of them is reported to have said that no rise in railroad rates would be permitted to meet such an increase in expenses,

and if a change in wages were made, it should begin with the lower classes of laborers rather than with the higher. A third doctrine should be added to these in order clearly to understand what issues are in such decisions—the doctrine that low freight rates are nationally advantageous. Before it can be determined whether or not railroad rates should be increased to allow an increase in the wages of employees, it must be decided whether high prices or low prices are socially advantageous. This decision is a part of the theory of prices and not of distribution. The second proposition comes under the theory of progress. It is a question of evolution as against utilitarianism to decide whether the wages of poorly paid employees should be raised before those of the better paid workmen. If we were attempting to improve a breed of animals, we would not begin by trying to improve the poorer stock. Do animal progress and human progress have different laws? Low freight rates favor the centralization of industry, while high freight rates tend to localize industry. There is the same problem internally in regard to freight rates as externally existed in regard to the tariff. The theory of industrial centralization is not a part of the theory of distribution and yet some decision about it must be made before theories of distribution have a practical value. These theories demand conscious attention. When they are decided the theory of distribution is definite and of great practical importance.

X

Budget Making

In current theories of distribution two radically different forms of society are confused. By trying to blend them into one social concept economists have set for themselves an impossible task and thus paved the way for the failure of their theories. They have assumed that the national dividend was divided into definite funds from each of which a distinct class obtained its income. There are funds but they are not all derived from the same social structure, and hence they cannot be added together to make one national dividend. Rent and profits are integral parts of a pleasure economy and become recognized only in a highly specialized society. A subsistence fund belongs to a primitive pain economy. Wages are a definite fund only when they are the equivalent of the toil of production or of the subsistence fund needed to perpetuate the working population. When values are due solely to work, rent and profits represent the exploitation of labor. On the other hand if the growth of rent and profit indicates progress the wage fund represents the still unsurmounted old facts standing in its way. Theoretically an advanced society should have no wage fund, nor on like grounds should a primitive society have a rent or profit fund.

Economists however have seized neither of these bold concepts but have tried to compromise between them by assuming that the laborers are in a pain economy struggling for subsistence, while the capitalists are in a pleas-

ure economy, enjoying rent and profits. This compromise creating a national dividend composed of three definite funds may have fitted the conditions of England in a particular stage of its progress, but it cannot be accepted as a general law. Every new adjustment shifts the relations between profits and the income of the toilers. If the surplus grows, the toilers are driven into narrower fields: if it falls off, profits shrink and the subsistence fund becomes relatively more important. Between them however there are no definite relations such as would create fixed funds each with its own laws. There is no equilibrium between struggling classes. The weak do not divide with the strong: they are either destroyed or driven from the field.

If income is not divided into funds some other viewpoint must be adopted to discover how income is distributed between struggling groups. Socially the equilibrium must be looked for not in a series of funds but in a series of budgets, each of which represents the forces acting on a given class. In each budget there is a recomposition of values so as to force an equilibrium between receipts and expenditures. To add to costs in one particular, forces reductions in costs in other quarters. To reduce costs likewise alters the value of other items. A change in one estimate forces changes in every value relation. This doctrine has often been stated in the abstract but no application has been made of it in distribution. A budget is another name for the value estimates which each man or group of men make when at stated intervals they round up their relations to other men or groups.

Budgets are social estimates. No man forms an equilibrium by himself. He is a part of some family, thus modifying his estimates of expenditures, or he is a member of some coöperative group of producers and thus acquires social estimates of costs. Usually both cost and expense estimates are social and hence on both sides of the ledger there is a recomposition of values. Each item gets its value by a process of social imputation and not from direct estimates of the pleasures and pains involved. Pleasure and pain disappear as psychic quantities and reappear as social estimates of cost and value. Pain is socially thought of as expense and pleasure as value. Every budget thus equates at some equilibrium and thus gives a social measure of group standing. This shift from natural standards to social standards furnishes the economic measure of progress. Primitive men have more or less as nature's abundance alters in amount. The budget maker rounds out his relations to nature in such a way that he has an equilibrium independent of nature's variations. These budgetary forces are the active agents in distribution; as they increase or are modified the national income is forced this way or that. A nation thus has a group of budgets each with its own forces, but not a group of funds each with its own laws.

There is a budgetary assumption back of current thought, although the method of expression hides its real character. The trade of two nations equates itself in a budgetary balance brought about by a recomposition of values in each nation so as to bring trade to an equilibrium. This national budget and its influence on values are well understood. It is also recog-

nized that each class has a budget in which there is a similar recomposition of values to that taking place in international trade. This is the theory of non-competing groups. It is, however, not so clearly seen that each business enterprise has a budget in which a similar recomposition of values takes place. Does a business firm merely add up costs and sell at a given profit, or does every change in costs force other changes both in costs and values so that a budgetary equilibrium is preserved? Another way of putting the problem is to ask whether, with each addition to the costs of single items, the value of the final product can be correspondingly increased, or must this growing cost in one respect be met by increasing economies in other items? What power, in other words, have business men to increase prices when costs increase and what likelihood is there of a fall in price if costs are reduced?

The answer to these questions depends on whether the business man is looked on as a bookkeeper who gives his statistics to the public in price tables or whether each business group is a unit with a budget in which a recomposition of values is worked out. The answer has been given by economists but their reasoning has not been generally accepted. In fact two theories have been presented, each with its advocates. Adam Smith said that values were the sum of costs and that they increased or decreased as costs rose or fell. This popular view has its best expression in free trade doctrines. Ricardo, however, contended that the increase of costs does not increase values: it lowers profits. The Ricardians were quite willing that trade should concentrate in England but they were not willing to say that the benefits of this trade were wholly English. They did, however, say that all the benefits of English industry went to the capitalists as profits, and that the laborers were paid from a fixed fund that had no direct relation to the productivity of English industry. In which were the English economists right,—in their assumption that the laborers did not share in the benefits of increased production or that foreigners who traded with England did? It is plain that they used the theory of Adam Smith in the one case while they used the Ricardian theory in the other. It is also plain that the Ricardian theory is a budgetary concept involving a recomposition of values. Capitalism is industry organized for profit. A producer becomes a capitalist as soon as he keeps his accounts so that profits and costs become distinct. His viewpoint now shifts so that he measures every act by the way it affects his profits. There is a revision of his estimates, so that costs figure as pains and values as pleasures. He thus creates a social viewpoint that distinguishes him from the primitive worker.

In a primitive society the wealthy class are not budget makers. The limit to their expenditure is the varying annual produce of their land, which is easily overrun in any nation where there is a money-lending class. The rest of the community is divided into traders who scheme and the toilers who suffer from exploitation. Primitive traders are notoriously unscrupulous. They prey on one another as well as on the community. It is from their cut-throat methods that the theory of competition arose. When

traders are transformed into producers each sale ceases to be an individual unit brought about by the higgling of the market. It becomes an item in a ledger showing not the high profit on individual sales but the average profit on many sales. The merchant deals with a group and his methods must become social to succeed. No one can become a statistician without socializing himself. The trader is thus brought into harmony not only with his community but also with his fellow dealers. Competition is in harmony with high return on single sales: it is not in harmony with high average profits. No one keeps an accurate ledger of receipts and expenditures without finding that his average profit is lowered by price cutting. He may thus dispose of otherwise unsalable goods or gain by some uncontrollable exigency of the market but his average profit will fall off. Budget-makers deal fairly with consumers and coöperate with fellow producers. Square dealing and coöperative methods are the only means of raising the rate of profit.

Competition is not a human trait but an unsocial tendency. It fails in large scale production because this is the first to be socialized. Large producers keep accurate books and know the cost of competition. They are the first to place high average profit in the place of high profit on single sales. Gradually, however, the small producers are becoming budget-makers and as they do their action differs from large producers only in being more social and hence more coercive in their demands that all members of their group live up to the standards of the trade. High social morality and high average profits have the same roots because they are both the results of the socializing influence of budget-making.

The theory just stated gets a practical bearing when it is asked: Does prosperity raise wages and lower prices or does it raise profits? If competition is social and group unity unsocial, the increase of prosperity should lower prices and raise wages. The gains of social progress would thus diffuse themselves among consumers and workmen. If, however, group unity is the effect of accurate budget-making, the pressure of economic progress will favor socialized producers at the expense of family budgets. Profits grow by the failure of prices to fall when the expenses of production are reduced. High rents result from a rise in prices. When prices are rising rents are growing; when profits rise costs are decreasing without a corresponding decrease in prices. There is thus a decisive test as to whether the consumer is injured by the rise of rents or of profits. When he fails to secure benefit from improved production profits have risen. When he pays more for goods rents are on the increase. Higher prices show that the national income is being transferred from profits to the rent and also that localized differential advantage is growing at the expense of centralized wealth. Rent is either a return for local advantage, for favorable positions, or for special ability. What a man gets for his individual powers, whether due to education or inheritance, is rent as truly as the income from a corner lot or a mine. Industries, therefore, are centralized, in which case their return remains profits, or they are localized, in which case their

return is mainly rent. Profit and rent represent two opposing tendencies, and from the opposition thus developed comes the acutest problem of modern civilization.

Budget-making is the force uniting men into groups and blending smaller groups into larger ones. It makes a social group out of all who keep their budgets in the same way, and creates an economic morality that prevents the aggressions of individuals from injuring members of the group. Of these budget-makers there are several varieties, or perhaps it is better to say budget-making has gone through several stages of development. The first type of budget might be called a nature budget because the contrast is between what man does in production and what nature does for him. The surplus is then the aid Nature gives. These estimates are true of an isolated man gaining advantage over a reluctant nature. They are defective in that they overlook the effects of invention and neglect class antagonism. The second type of budget is the national budget so much emphasized by protectionists. While apparently national it is in reality a class viewpoint, because tariff schedules are made by manufacturers and reflect their interest. A third budget is that of all centralized industries. Wealth, not welfare gains recognition. All progress thus seems bound up with and measured by the growth of capital. From such industries there is no hope of lower prices, but at the same time there is little danger of a rise. The fourth type of budget is that of the working capitalist. Here the estimates are in terms of work. Capital is an adjunct of work but not an independent agent. The farmer says that he has done a day's work when he has plowed eight acres of corn because he thinks of himself as the active agent in the process. He says he raised eight hundred bushels of wheat, not that his farm produced it. A physician also says that he cured the patient, not that his acquired skill did it. All professional men think in terms of work and overlook the capital involved in their education. They have no budget showing profit; it shows only day's work and annual income. Profit and work are thus symbols of opposing budgetary ideas, and the two views seem to clash where there is in reality a fundamental unity. To think in terms either of capital or activity shows defective budgetary concepts which the future development of budgetary relations will remove. There is a unity even if as yet it is unseen. All budgets would harmonize and blend if they were complete enough to show the needed facts.

XI

Family Budgets

The fundamental change separating industrial nations from their primitive predecessors is the rise of budgetary concepts and the resulting recomposition of economic and social values. Modern calculation forces readjustments through which primitive emotions are decomposed and reorganized in more effective ways. Emotional outbursts are thus suppressed or turned into

useful channels. The first of these budgets was the nature budget that traces the source of welfare either to the favorable action of nature or to the work of men. The second was the national budget made prominent by the mercantile economists. The commercial budget came next, in which the emphasis of profits and costs became prominent. The budget of the working capitalist is the most recent addition to this series. It is harder to name this type of budget because it appears in many forms, each of which is too specific to be generally applicable. The product which the worker with machines imputes to himself is largely the product of the machine he uses. So, too, the farmer's product is largely that of land, the small dealer's product is partly that of his location, while the product of the professional man is mainly that of acquired skill due to capital sunk in his education. In each of these cases there is a joint product of rent, capital and energy imputed to the active agent as work. This is a recomposition of values which brings a social reconstruction in harmony with budgetary needs. Call this class what you may, it is the largest and strongest class in modern societies and by its action the progress of the future will be shaped.

The growth of budgetary concepts does not cease with these developments. There are other types of budget forming of which the municipal budget is the most easily recognized. But of more importance, although thus far more indefinite, is the family budget now so forceful in shaping social estimates.

Personal development is said to be a recapitulation of the history of the race. The child starts early in his emotional life and becomes rational as he suppresses emotional estimates and puts in their place values formed by the budgetary group of which he is a part. The word "family" has two meanings. We think of it as an emotional group whose ties are sexual or we think of it as a budgetary group held together by common work and life interests. The first sort of a family has no budget. Its morality consists of emotional checks voiced by tradition. Family budgets represent the change that comes over families as they rise in efficiency, and are thus capable of putting into effect economic checks to the evils from which they suffer.

The first effect of improved production is to raise profits. What are the forces that take revenue from this fund and transform it into wages or into cheap commodities? Protectionists reply that national prosperity brings high wages, and thus adds to the family income. Free traders, on the contrary, argue that their policy reduces costs, and thus aids families on the expense side. These two seemingly different policies are rooted in the same economic doctrines. Prosperity lowers cost, and thus permits a higher wage rate, says the one; prosperity lowers costs, and thus reduces family expenses, says the other. A third possibility, that prosperity, by lowering costs, raises profits, is overlooked by both disputants. Which then is good economics: prosperity raises wages; prosperity lowers prices; or prosperity raises profits? To answer this question the nature of industrial changes must be explained. Improvements of the Nineteenth century have been

especially prominent in iron and steel production. A second group of changes show themselves in a lowered cost of transportation; a third in agricultural machinery. These improvements affect the family budget only indirectly, either in the price of houses or of food. The real cost of producing food has fallen, but instead of lower food prices there has been a rising price of agricultural land. The burden of higher prices is on raw materials, farm buildings, fences and machinery, and building material in city homes. None of these items enters into family budgets. Between producer and consumer, in all these cases, there is a landlord to whose benefit the lower costs accrue. Family budgets do not, therefore, show the improvement that industrial changes would warrant. Rising profits check the growth of wages; rising rents absorb the gains of industrial efficiency. Family budgets face a deficit where, if the relations between costs and expenses were direct, there would be a surplus.

There are articles, however, to which the consumers' relations are still direct. Of these, sugar, wool and silk are important. To families with an income above $1000 a year, they form a burden of say five per cent of income. The same families are paying twenty per cent of income as rent. Let me illustrate in my own case. I buy three suits a year, on which the tariff duties are ten dollars each. For room rent I pay four times as much as for clothes. It costs me two dollars a day for food, of which one-fourth is rent in some of its various forms. My tariff duties are not more than fifty dollars a year, while my payments for rent exceed $800 a year. This is a fair sample of incomes above $2000 a year. It is rent, not the tariff, that makes the burden under which the workers groan. What the landlords, city and country, obtain is that part of the gains of concentrated industry which the trusts, railroads and the protected industries have not been able to hold. There is a real opposition of interest between the centralized industries, whose gains are profits, and the localized industries where income is mainly rent. It is possible to aid Illinois farmers at the expense of Pittsburgh profits, or New York landlords at the expense of those of smaller towns. Neither group, however, has any right to claim they represent the people. To transfer dollars from New York to Wisconsin is no more to the public interest than a movement in the other direction. The family budget is not improved by going from city to country, or from Iowa to Texas. Local advantage is absorbed in land values. To move is merely to change landlords. To vote another ticket may help this politician or that, but it will not remove the deficit from the family budget.

The annual produce of a nation is thus distinct from the sum of family budgets. The total income of families equals the total output of personal energy, but the annual produce that results far exceeds the sum entered on the expense side of the family ledger. All that goes to replace capital or to increase capital forms no part of family budgets. If the annual surplus of a nation were used to increase capital, a steady growth in the number of families would result, but no change in the average family budget. Such

a nation would be called prosperous and trade statistics would prove the contention. It would, however, be a national, not a family prosperity. Some other change than mere growth must take place to alter budgetary relations.

We get an explanation of budgetary improvement by contrasting personal income with vested income. Personal income comes from productive acts which cease when the producer dies or is disabled. Vested income is impersonal and is enjoyed by some one so long as production is unaltered. All profit and rent are vested income. The share that goes to them is capitalized and remains a fixed charge on industry. Family income increases as personal income grows. It is not altered by what increases vested income. The sum of profits and rent is thus outside of the influences affecting family budgets. There is a well-known economic law which says profits fall as wages rise and rise as wages fall. The newer expression of this law is that the sum of family budgets increases in amount as vested income falls off, and is reduced as vested income grows. Whatever reduces the price of articles composing the fund replacing capital increases vested income through the resulting rise in profits and rent. If industrial improvements reduce the cost of articles in the replacement fund and not those entering family budgets, they will increase vested income without any necessary alteration of family welfare. There is a gap between national prosperity and improved family life that must be filled in some other way.

Higher values for personal services do not seem to relieve the situation because the change merely raises prices and does not alter price relations. This objection would hold if all personal services were used to produce consumers' goods. Much of them, however, is employed to replace capital. In so far as the higher prices of services increase the value of the replacement fund, the burden of the change falls on vested income and not on family budgets. All of the increased value of personal services goes to improve the monetary side of family budgets while only a part of the increased cost falls on the expense side. Roughly speaking, two-thirds of the laborers are used either to increase capital or to make non-consumable goods. The major part of the growing cost of personal services thus falls on vested income. Consumable goods rise in price but the capitalized value of investments falls off because of the decrease of vested income. There is, therefore, a way in which budgetary values can react on the industrial situation. Is there a practical way in which it can be realized?

To answer this question the social effects of budgetary pressure must be analyzed. Wants in a progressive society grow more rapidly than the means of satisfying them. This creates in family budgets a state of chronic deficit. There is no hope of relief through decreasing costs, because low prices are the index of low values of personal service. The family budgets lose, therefore, on the income side, all the savings that low prices bring, while the gains from low costs accrue to the benefit of the replacement fund and hence raise profits at the expense of personal income. Reductions in prices

thus increase the budgetary pressure. The relief must come from other sources.

Budgetary pressure comes from whatever intensifies family life and puts its welfare above other units, groups or ideals. Its growth is mainly due to the socialization of ideals by which personal, national or religious standards are displaced or incorporated into those of the family. Early religions emphasized a future state, primitive morality emphasized the repression of wants, while national preservation depended so fully on struggle that it emphasized military valor and self-effacement at the expense of family obligation. All these external pressures must be removed before social ideals stand out in contrast with those of primitive societies. The new standards are, however, plain enough to permit of their enumeration and valuation: Health, leisure, recreation, education, home, food, clothing and social service are among the forces increasing budgetary pressure and to them social progress is due. In contrast to them, however, stand certain other tendencies that relieve budgetary pressure. Prominent among these are:

The increase of personal efficiency.
The industrialization of women.
The lengthening of the working life.
The shortening of the working day.
The increasing power of substitution.
The intensification of activity.
The increase of family altruism.
The diffusion of wants.
The socialization of household expenses.
The increase of taxation.

Most of these tendencies need no explanation. An exception to this is the law of substitution. If low prices cannot be secured through the competition of producers, there remains a possibility of relief through the shifting of consumption from costly articles to those less expensive. The change from woollen to cotton clothing or from meat to cereal food illustrates widespread alterations in consumption that do much to relieve budgetary expenditure. This power grows steadily and is the only effective check to high prices. Low prices form the goal of industrial progress to be attained by the consumers having many ways of satisfying their wants. A socialized community has no effectual escape from monopoly except by changing desires so as to utilize new commodities. The fate of the consumer lies solely in his own hands. The competition of producers is a vain hope resting on a misunderstanding of economic motives and of the social forces they generate.

Family budgets have, however, another source of relief. Checks to expenditure tend to bring the family budget to an equilibrium and are the basis of industrial morality. The effects of this new morality may be stated in the following terms:

The increase of sex restraints.
The decrease of the birth rate.
The delay of marriage.
The economy of house rent.
The economy of costly food.
The economy of time.
The decrease of saving.
The increase of life insurance.
The sacredness of trusts and contracts.
Promptness in fulfilling engagements.
Restrictions on child labor.
The decrease of luxury.
The reduced use of intoxicating liquor.
The increased valuation of future welfare.
The love of economy for its own sake.
The socialization of industrial groups.

Such are the moral effects of budgetary pressure and they rank high among the causes that relieve it. Do what they may, however, there is still a net deficit in the normal family budget which must be met by a rising value of personal services.

Budgetary pressure in distribution acts either against vested income or it forces the toiling underworld into a less favorable position. There is no economic law that will prevent or restrain this pressure. Wage funds and interest funds are antiquated concepts derived from pre-industrial conditions. The power of survival is always in the hands of one class. Industry gives it to the working capitalist as the earlier military society gave it to the leisure class. Society is in the hands of those who combine thought and work. In this unity lies the hope of the future.

XII

The High Cost of Living

The recent rise of prices has created a demand for new investigations and new theories throwing light on price changes. With two theories of price changes the public is already familiar; the theory that rising prices are due to the increase of money and that they are due to monopoly. We know the effect of rising prices on various incomes, on business activity, on the value of property, on saving and the distribution of wealth. Changes in monetary prices have occurred often enough and have been sufficiently widespread to establish valid conclusions on all these points.

I state these facts to suggest that these two fields do not cover all the cases of price changes. The current high prices may not come from either of these causes but from economic phenomena not fully observed and hence without a theory for their explanation. The demand is, therefore,

for an hypothesis about which to organize the new facts and then for statistical investigations to verify the preliminary hypothesis or to point the way to a better one.

I shall start therefore by asking a question: what would be the effect on prices if the supply of loanable capital should fall off? To answer this question a clearer definition of loanable capital and a better contrast between it and other types of capital must be devised. Adam Smith thought of capital as a stock of goods annually produced and consumed by the participants in production. By capital we now mean any permanent investment from which income is derived. A contrast is sometimes drawn between fixed and circulating capital but of it little use has been made. Economists state it and then pass along to draw conclusions about fixed capital which forms the bulk of national investments. In my opinion the stock of Adam Smith, the commodities of trade, circulating capital, loanable capital and consumers' goods are practically the same fund named differently as it appears in various forms. It would need a more concise definition to make them equivalent but in so doing we violate no usage and help towards the acquisition of clear ideas.

Loanable capital must be in some mobile form so that it can be employed in many ways. A bolt may be used or not used, but its destiny is fixed. It must go into a given mechanism. But food and clothing may be used by different people and hence their transformation may produce a multitude of objects. Their direction is not determined until the loan has been made and used up by given workers. If this mobile stock is in the hands of a banker it is called loanable capital; if in the hands of a dealer it is called commodities; if talked about by an economist, it is circulating capital, and if in the hands of a consumer, it becomes consumable goods. The view depends on the problem we desire to discuss but in all the views we have one objective fund standing in contrast to the fixed investments of the nation.

Practically all loanable capital is in the hands of bankers and disposed of by them at given rates of interest. The rate of interest is determined by the return on circulating capital and not by the return on fixed investments. It is fixed by the difference between the value of the consumable goods used up in an act of production and the consumable goods that this act creates. Fixed capital yields a net return which is valued through the rate of interest. A net return of $10,000 and a four per cent rate of interest means an investment of $250,000. We then say this investment yields four per cent when in reality the rate of interest was the cause of the value and not the reverse. The measure of interest comes to light only when consumable goods are used to make other consumable goods. It follows from this that the rate of interest is the index of the amount of consumable goods and thus of loanable capital. If it rises, the amount of consumable goods is falling off relative to other forms of wealth. If this did happen, would it affect all prices alike and thus act as alterations in the supply of money do, or would it be felt in particular ways and under given circumstances? Here is a query that it is at least worth while to follow up.

Alterations in the quantity of loanable capital are due to changes that affect consumers. If there is less consumable capital, the consumer has in some way altered his habits. Funds that were formerly set aside, and thus came into the hands of bankers, are now used in other ways. This means that families have found new openings for expenditure and have less to save than formerly. If this is true, a better tabulation of wealth statistics would reveal a falling off of saving, even if familiar statements of facts seem to prove the reverse. But to make this clear needs some revision of definitions and more care in statistical tabulation. One difficulty is in the definition of saving. If a man working for wages spends less than he earns, the surplus becomes loanable capital. If, however, he enters into business, he uses his capital and goes to the banker for more. Small businesses are of such a nature that personal skill is essential to their success. The capital used is an adjunct to the skill and the joint return is regarded as due to the person and not to the tool or stock. Most capital in sums of less than $10,000 is personal capital of this sort. Its increase means a shortage of loanable capital. If savings are defined as a loanable fund, used by some other person than the saver, then savings have fallen off and at the same time the personal qualities and virtues of the non-savers have increased.

The non-saver of earlier generations was an extravagant individual, without family ties or social motives. Non-saving to-day is a budgetary pressure forcing alterations in the family expenditures. The non-saver is now a higher type of a man than the saver, just as the saver was an elevation of type above the extravagance of more primitive men. This higher family aims to create a flow of income to enjoy and not an accumulating fund for future support. Its striking effects are manifest in the pressure to reduce the birth rate and to delay marriage. The budgetary equilibrium is attained not by reducing expenditures but by elevating the family to a higher social status where more efficiency produces the needed income. This means an increased demand for education and a delay of the time when children enter industry. Economy is thus forced on each generation of parents to put their children in a station above their own. This economy shows itself not in a personally unused fund but in an intenser use of present income. With a boy at college the family income is fully used, the banker gets no new funds, deposits may even fall off, and yet by the pressure the family is elevated in social position through the increased earnings of the son. Measure by the year and there seems a loss. But a survey made after a half century would show more earning power and a better adjustment of income to expenditure. Progress is by epochs; failure shows itself in short periods. It forms the temporary curves that delay but do not prevent the rise of standards and the increase of welfare.

If we shift the view from the family budget to that of the banker, we find another pressure forcing a flow of capital to more effective points. The function of a bank is not to create capital but to economize its use by checking the expenditures in places where the return is low and causing a more

rapid flow of capital in productive directions. This in practice brings two results: investments of fixed capital are favored and personal loans are concentrated in the hands of the more efficient producers. Increased economy thus means the more effective use of loanable capital in the form of consumable goods, so that the fixed investments may be increased. Progress is made either by improving the personality of those who control the making of consumable goods or by the permanent transformation of nature that fixed investments promote. The pressure on the banker to find a more efficient type of local producer is matched by the pressure on the family to be more efficient so that the family status may be raised. The family saves less and spends more so as to bring this about, while the banker uses his reduced loanable funds to so much greater advantage that the shortage in savings is made up by the increased skill of the banker. Progress thus goes on, but if we look beneath the surface the forces that make it are radically altered. Personal efficiency rather than a growth of population is now the great force in increasing wealth. The line of progress has been from saving to efficiency and from a stock of consumable capital to permanent investments yielding greater income with less current expenditure. With the uplift of the personality of those using capital has come a better social spirit and a replacement of competition by coöperation. It is thus easier to get groups of producers to combine to prevent waste and when they combine, the maintenance of fixed prices is more readily insured.

High prices of consumable goods are thus the natural result of the increase of personal efficiency on the one hand, and of the increased economy of circulating capital on the other. The need of increased efficiency cuts down the supply of loanable capital and the smaller supply of loanable capital creates a demand for more efficiency in its use. High personal incomes are the complement of a high return on capital. The scarcity of capital causes an intenser use of labor while the scarcity of labor causes an intenser use of capital. An oversupply of cheap labor is the index of an early civilization, while dear labor and a deficiency of loanable capital offer evidence of a newer type manifesting itself in contemporary events. We have become used to the thought of a rising rate of personal income. We lack the complementary thought that a high rate of interest is also the index of progress. The reason for this lies in the acceptance of an antiquated theory of distribution making it appear that a rise in the rate of interest is at the expense of wages. This is perhaps true of a static society, but in a dynamic society the less effective forms of both labor and capital are eliminated and from this change there should result both a rising state of wages and of interest. The more careful investigations of recent years have shown the slow but steady rise of wages and a more than corresponding improvement in the welfare of laborers. It is more difficult to prove a rising rate of interest. There have often been changes in the local rate of interest but there has been no marked change in the rate paid on secure investments. Either the rate of interest has been a conventional matter not indicating the rise and fall of profits, or family ideas of stability have altered so little

that a steady flow of new capital has been assured without adding to the inducement to save. There are now indications that this is changing. Secure investments have a less favorable market than formerly which may indicate a permanent change in the attitude of the public towards them. Life insurance has become so safe that it offers greater security for the family than any investment. It would thus seem to add to the causes that check the increase of loanable capital, and in this way help to bring about a rising rate of interest.

If greater personal efficiency, a higher wage, less loanable capital and a higher rate of interest are parts of a complementary group of changes, there would result from their joint effect a new adjustment of prices and a series of price alterations different from those now recognized as coming from monopoly or from alterations in the supply of money. High wages and high rates of interest would raise the price of consumable commodities; they would, however, lower the value of permanent investments. The higher rate of interest would reduce their face value. A five instead of a four per cent rate of interest reduces the value of investments twenty per cent. High prices of consumable goods that enter family budgets mean also high wages and high replacement charges on fixed capital. A larger part of the total income of society thus flows into family budgets. While they are the index of blessings in the hand and in the future, high values of consumable goods are a real hardship when measured from year to year. The rise in income comes in lumps with the new efficiency of the rising generation; the price changes are a steady pressure always felt and always the cause of a current deficit. Each family runs down as it grows old but is replaced in the end by a new family on a higher scale of existence. The apparent fall and the increasing pressure are thus blessings in disguise, indicating deeper currents that counteract their visible effects. The flow of social progress is all in one direction: the apparent failures are in reality short-sighted views of a larger evolution.

The important facts after all are the changes through which industrial evolution is carrying the nation and not the passing items of momentary interest. Only when they are all grouped together and interrelated can the trend of progress be seen. The following are some of the elements now visible in industrial life:

1. High prices of commodities.
2. Higher family incomes.
3. The industrialization of women.
4. The delay of marriage.
5. A low birth rate.
6. Restrictions on child labor.
7. The increase of industrial education.
8. The increase of voluntary associations.
9. The reduction of intergroupal competition.
10. The decrease of speculation.

11. Higher rates of interest.
12. Lower values of securities.

XIII

Voluntary Socialism

Social sentiment and social action are not closely related. The difference, however, is well defined and the contrast so apparent that some working compromise between them should be found. Social sentiment is democratic or socialistic. Both these movements are levelling processes bringing men nearer to an equality by breaking down the barriers of prejudice, tradition and class difference that have kept them apart. Sentiment is thus a negative force removing barriers and not a constructive force reorganizing society in harmony with new conditions.

In passing from sentiment to action two well-defined programs present themselves—coercive action that becomes state socialism, and coöperation which as group action becomes voluntary socialism. The voluntary principle was the basis of socialism, but certain errors of the early socialists helped to bring about the transformation of socialism to its present coercive attitude. They appealed to the rational opinion of individuals biased by class and race prejudices. The so-called rationalist was in reality a disguised sentimentalist whose opinions were egoistic and whose action was unsocial. Opinions are consequences, not causes. Molding and reshaping a man, they create for him a new view in harmony with his new situation. They are therefore bad when inherited and good when acquired. The new is formed through social action; the old is impressed by imitation and argument. Action is better than thought when new situations must be faced. It is not the wrestle of thought with thought but of social group with social group that gives the final test in evolution. The early socialists studied social movements and interpreted them in the light of current thought. Marx read books and argued about the validity of premises. We should neither take the facts and interpretations of the earlier socialists nor Marx's arguments. The problem is not what were the facts or what were the arguments valid in 1848 but what conclusions do current facts warrant in 1912.

Coöperative farm colonies have not succeeded nor has profit sharing been a success. So much can be readily conceded. For the advocacy of these measures the early socialists merit the discomfiture that all prophets would have if they faced the outcome of social progress. It is one of the paradoxes of progress that the march of events inaugurated by reformers moves in directions not anticipated, and often assumes forms to which their originators were radically opposed. No one would be more disappointed than the martyrs who have died for progress if they were here to-day to see what its events have wrought. Voluntary socialism is not to-day what its originators anticipated, but it is here in a thousand observable forms. We

should not go to Owen or Marx to discuss it, but should take it as we find it and describe it as it now exists. Every industry has changed from an antagonistic or individualistic form to one of voluntary coöperation. Social movements are on a voluntary basis from which observations may be made revealing the methods and results of social coöperation. Progress has not forced social groups into distinct classes, each with a bundle of interests to defend, but each interest has been made effective by the formation of a special group to promote it. We are all in many groups in each of which there are new faces. Our foes are not groups of antagonistic men, but incompetence, mismanagement and maladjustment. Our friends are thus personal and our foes abstract concepts.

This blending of individuals in a multitude of associations keeps opinion mobile and makes thought plastic. Out of each group some element of public opinion comes which rises into a principle and thus gets a validity which no argument can oppose. Even that which is coercive has a voluntary origin. If we have coercion in the future, it will not be the coercion of Marx but a coercion of principles and habits which now we accept as a voluntary expedient.

The best example of voluntary coöperation is the evolution of the modern banking world. Having had an uninterrupted growth for two centuries it has had time to show the results of voluntary action. State banks have never received popular approval, and large banks have always met with public opposition. A voluntary growth of banking action, opinion and morality was thus forced on the bankers whose axioms and usages have no other means of enforcement than the voluntary assent of those ruled by them. The result is that the bankers are the most social body in the world; they have also a high type of business morality. The new morality of the international world can be said to be a banker's morality, since its rules and traditions were first put in force by bankers. As the outcome of this voluntary growth of opinion, the banks are the most conservative of all organizations. High prices and high rates of interest have been discountenanced, the long view has become the banker's view, while the gains of plodding industry have grown in favor above those of speculation and rash venture. The public still has complaints to make and doubtless the evolution of banking opinion is not complete, but it is interesting that these complaints largely hinge on the too great force of social usage. If one banker opposes a man or an enterprise they all follow suit. They thus effectively curb one another and elevate their social standards. There is practically no competition and yet for individual services there is a low range of prices and no disposition to take advantage of the public by short-sighted practices. Restricted competition, low prices and public spirit are thus combined in ways that reveal their tendencies and show what other industrial organizations can do when time and experience have developed usages bringing group action into harmony with public welfare. When an international struggle recently was prevented by the action of bankers, all applauded even if they failed to see what put the bankers into opposition to

war. Long experience, however, has taught them that while a war may temporarily increase their profits, they lose by the destruction of capital and the lower rate of profits that follows its destruction. They may be as patriotic and as desirous of temporary gains as are other citizens, and yet the force of socialized banking opinion causes them to conserve public welfare. The bankers really form the one effective international group, and thus their action is based on the world's welfare and not on that of individual nations or classes. Banking morality is the highest morality because it lacks the limits that national, local or creed morality possesses.

We all see this when peace and war are at stake. What we forget is that the same instinct that restrains war also restrains useless construction. A new railroad may be advantageous to its promoters but it is as much a loss of national capital as if it had been used as powder in a battle. We think still worse of bankers when they refuse to help some industry or check the aspiration of some city or section for a rapid growth. The instinct that leads to the refusal is social, and raises the general rate of profits as definitely as would the checking of war or of rash railroad expansion. It is a wise judgment that says we have enough railroads, factories and business enterprises, and that capital should be used to increase their efficiency rather than to make new rivals. This helps in the formation of trusts, and encourages the successful business man at the expense of his less active competitor, but it helps also to improve social relations and to increase social efficiency. This change in the conditions of survival has come to stay. Public opinion is sound not as it opposes such changes, but as it takes advantage of the improvements made and applies them in other fields.

The development of the railroads along social lines has not gone so far as with bankers, but the movement is in the same direction. Temporary profits, cut-throat competition and the arbitrary changing of the rate of dividend to influence the stock market have not ceased, but they have been checked in their operation. It is to-day true, as it was not true yesterday, that some men are too bad to be permitted to control a railroad. It is also true that railroads put their new capital into permanent improvements and not into track extensions. Large concentrated investments giving a lower but more permanent return, receive a preference, thus bringing their action into line with public interest.

The trusts show fewer of these socializing changes because their history has been too brief to create the group sentiment that enforces them. In the history of their formation, we find that each failure led to the exclusion of the less social of the competitors. Every new attempt found the survivors more social in their inter-groupal relations, until the upward movement was complete enough to create a compact social group with a high sense of business honor. Say what we will of their outside conduct, the greater and firmer the business organization, the more compact is its social opinion and the keener the realization that personal honor and business ability go together. Social power is to-day of more consequence than brute

superiority. Survival now is not an individual struggle, but a success within the limits of group action.

Labor organizations are crude and yet progress lies in their upbuilding. Any outside control of a group is bad, because it is a dogmatic suppression instead of an internal evolution. Sound group opinion will grow among the workmen only as it is formed by the success of their organizations. Revolutionary ideas are born in failure; they come from bitter experience and from short-sighted views. Success tempers and elevates. It makes group opinion social and group action conservative. Give the workmen what they want and their interests will be found to correspond to public welfare. By this I do not mean to claim that the interests of all laborers and all employers coincide. That would go further than present evidence warrants. But it is true that the interests of permanent investments, and of the workmen who operate them, would be promoted by better conditions and a higher wage for the workers. Organization gives to each party the ability to enforce its urgent claims and creates a willingness to yield where the concession is less vital. No one but the group can form its restraints or elevate its social tone. The present state of labor disputes is bad because both sides carry such a load of dogmatic opinion. Only internal strength can uproot dogmatism. The greater the strength, the more empirical the judgment, the more social the action. The cure of struggle is the socialization of the contending forces.

There is such a wealth of examples of the action of voluntary groups that the only difficulty is that of selection. Sixty years of successful evolution force a change of judgment from prediction to fact. Instead of looking ahead and prophesying we can now look back and review. The evolution of a social group is from interest to sentiment, and from an admiration of superior persons to that of programs. Superior men, the hero and martyr, unite groups; their subsequently formed ideals elevate their standards. Evolution is thus from struggle to coöperation, from personal control to social control and from concrete rules to abstract principles. The growth of social control is from persons to words, from words to artistic expression and from art to religion. A word or phrase can unite people and hold them together more permanently than can any leader. Art is more expressive than words, while the cosmic emotions of religion are deeper and more unifying than the social awakening of language or culture. The social groups grow larger and the opposition of interests diminishes as each of these stages is reached. The lower diversity of interest is transformed into a higher unity. The strength of social bonds lies in the freedom that led to their perception and acceptance.

There is also a change in judgment accompanying this growth of social sentiment. Pragmatic judgments replace the dogmatic decisions of the earlier stages of progress. Pre-judgments are thus transformed into post-judgments; experience wins over opinion. The state is the last surviving form of dogmatic opinion but even here the yielding to voluntary action is evident. Government is now party government and political parties are

organizations held together by assent. Back of the party is a multitude of smaller voluntary organizations whose activity gives it its force. Government action is thus not a public decision, but the action of some voluntary group who for the time act as the state. Laws are thus made and when made are enforced by some active voluntary agent organized along social lines.

To have state socialism would not create a new power above men but would make emphatic the voluntary political organizations which control the state. There would be the same formation of group within group until the real control fell into the hands of the more active and the more social. We are governed by minorities just as industries are controlled by them. The problem is not to escape control but to transform society so that wisdom dominates. Voluntary grouping evokes an ability to select the better which when given full expression brings group action and social action into harmony. Sentiment and judgment are one when social groups are blended into one society. The first axiom of social advance is: never take the chance of conflict when compromise is open. From this simple creed all social progress comes. The full moral code is but a more explicit statement of what this axiom implies. The way of peace is the way of prosperity and there is no prosperity without coöperation, toleration and compromise.

XIV

The Avoidance of State Socialism

The preceding discussion has shown the difference between socialism as a sentiment and socialism as a mode of thought. State socialism is not this sentiment but a means of realizing it. It is a program for attaining industrial ends and must be judged in its relations to rival programs. The real contrast in programs is between state socialism which is coercive in its action and voluntary socialism that has back of it the coöperative action of the various social groups. Voluntary socialism was weak because it pictured early agricultural conditions and gave to each group a greater independence than modern industry permits. This agricultural grouping was made impossible by the growth of centralized industry. So long as the scale of production was growing the evidence seemed to show that industry in its final form would be unified under state control. State socialism is coercive industrial action. The centralization of industry appears to leave no other alternative. It must be either state action in the interests of the masses or their exploitation by those who acquire industrial control. Such was the picture of 1848 and on it the recent development of socialism has turned.

The conditions of 1912 are different from those anticipated by the prophets of 1848. Centralized industry has had a great development but its limits are now plainly seen. It is one of the elements of the present

industrial situation but without power to dictate to other interests. This failure to control leaves open the way for other forms of social action of which so many are in active operation that the trend of social development is discernible. There is no industrial group that does not have a voluntary organization uniting its members and voicing its claims. The industrial groups never were so diverse as at present, nor so intense in the social control they exercise. There are large groups and strong groups but no dominating group. The law of social growth is that of the diffusion of interest. This is a stronger principle than that of the centralization of industry, and with its dominance comes the strengthening of local industries in each of which is a social group united both in feeling and interest. What type of action meets this condition of diversified industry? There must surely be some way to progressive action in such a society, and this way must be different from the state socialism a centralized industry would force on a nation.

Back of these two types of industrial organization are two modes of reaching decisions that must be contrasted before the issue is clear. Decisions may be either dogmatic or pragmatic. Dogmatic decisions are based on predetermined data and enforced by racial or class sentiment. A dogmatist can determine what should be done before a given case arises, because acts are judged by standards set up before action takes place. Pragmatic decisions are made after the event and are based on evidence that it creates. Every pragmatic judgment incorporates new material in each decision by which it is modified.

Judgments also differ in being coercive or coöperative. Coercive judgments are made by a strong group and then forced upon the weaker classes. A good illustration of this is the subjection that men have forced on women. The strong make the law to which the weak must submit. The opposing principle is that of coöperative assent. An example of this is found in international law. No modern nation is strong enough to impose its will on other nations and hence general action must have the assent of all interested. On this basis has grown up a series of decisions coöperative in origin that have a force no nation can resist. These decisions are pragmatic. International conferences are not called to settle hypothetical cases. The subjects arise out of unexpected circumstances and the assenting nations act with a full knowledge of what the effects of the decision will be. There is no blind alley in international law. It is conscious coöperative action based on a full knowledge of the losses to which each nation must submit and the gains it secures. The pressure of such a situation forces each nation to yield on points of less importance in order to secure that which it deems essential. Each nation thus gets an advantage out of international decisions just as it does out of international trade. In both cases what is less desired is given up to secure what is more important. Pragmatic decisions thus maintain peace where coercion and dogmatic predetermination would fail.

The key to all social progress lies in accepting this principle and applying

it to complex industrial situations. Industrial groups must coöperate in decisions just as nations do. Such decisions are pragmatic, the judges having full knowledge of the case, deciding only on events that have already transpired. Each party must yield the important to secure the essential. Such a method is not mere theory but is in active operation. It means the decision on industrial differences not by the courts nor by legislative acts but by commissions formed after the dispute arises, with judgments limited to present cases and secured with the assent of all parties concerned. The courts and the legislature decide cases on predetermined data and impose their decisions by force and not by coöperative assent. Majorities thus crush minorities instead of raising them into a coördinate position. Take as an illustration the dispute about protection and free trade. The free trader asserts that if an industry fails to sustain itself under foreign competition it should be permitted to die out. The protectionist on the contrary asserts that every industry should have protection enough to enable it to pay current wages. Both of these contentions are dogmatic and the decision is made on predetermined data. Either principle fully acted on would bring a conflict to be decided only by the coercive power of a majority vote to be reversed by every temporary whim of the ruling element. The pragmatic method would demand decisions based on evidence coming out of the events to be judged. On the one hand capital and labor must be employed, on the other the consumer needs protection against needless waste of productive power. Every case if treated individually offers some compromise giving both factors what they most need. No legislative body can rightly settle any such case on predetermined evidence or by deductive principles. The facts in dispute must first arise and then upon them some coöperative decision must be worked out. Dogmatism and pragmatism stand opposed in every industrial decision. The one leads to state socialism and the other to intergroupal harmony.

The lack of progress in settling tariff disputes may rightly be compared to the steady strides towards international peace. The need of peace is certainly as urgent as the need of free trade. Both are based on sound principles that must some day be universally accepted. The advocates of free trade, however, set up dogmatic principles based on predetermined facts and from them they judge current events. They do not compromise with opponents but carry on a destructive war out of which increased animosities come. In contrast to this, the advocates of international peace pursue the pragmatic method. Single evils are isolated from the general effects of war and eliminated by the general assent of combatants. Every nation knows what it is doing when it limits the sphere of war and sees in it some advantage for which its assent was given. This pragmatic process would be as successful in industrial matters as in international disputes. There is no majority and minority in trade relations nor is it a case of the good against the bad. As many industrial groups are involved in trade disputes as there are independent nations in international conflicts.

Each age is ruled either by the judgments of past ages expressed in senti-

ments, tradition and law or it judges its own acts, expresses its own will and avoids the evils it sees instead of those its predecessors assumed would exist. The rules of a stable advancing civilization are concurrent estimates of present welfare and not predetermined judgments based on ancestral anticipations. The change from one basis to the other is not a sudden revolution but the gradual result of awakened public opinion. We have really gone much further than is apparent in the application of the newer attitude in legislation and in settling trade disputes. The many specific examples of its application need only to be recalled to show their breadth. The referendum and the initiative are crude forms of concurrent control. They lack, however, the coöperative assent needed to make them effective. If such legislation were limited to cases where coöperative assent had been previously obtained, the legal enactment would be merely a satisfaction of agreements already secured. The steps would then be like an international tribunal whose acts are only effective when ratified by the concurring nations. It is only formal justice that needs preorganized courts. The unsocial acts should be condemned by them but in industrial disputes their power should be limited to enforcing delays and in the protection of public rights until a properly constituted tribunal can be formed. Choosing judges, after it is known what the dispute is about, is better than recalling judges who make bad decisions. The trouble arises not from the shortcomings of the judge but from the temper of the precedents on which he relies. When current judgments displace ancestral anticipations of coming evils the courts and the public will be in harmony as to the remedies needed and both will replace their dogmatism by coöperative assent. The law should merely register and the court apply decisions reached by mutual concessions of the groups concerned.

In the past there has grown up a buttress to individual liberty in the form of political rights. When our national constitution was formed no bill of political rights was included. The defect, however, was soon remedied, thus creating a limitation to majority rule which has been an important element in national stability. If this is true in regard to political rights, it is equally important in industrial disputes where suppression of weak groups by the strong is as dangerous as is the political dominance of majorities. There is as much need of economic rights as there was for political rights. A right is an effectively expressed sentiment that carries with it a self-condemnation of its violation. It gives the individual or group a clear basis on which to make an appeal and furnishes a test of where the strong are over-riding the weak. Such a bill of rights could be readily formulated; it would check aggression and arouse sympathy in behalf of the industrially wronged. In another place[1] I have formulated a bill of economic rights that would correspond to the political rights now a part of our constitutional guarantee. I will restate some of them so that the content of such a bill can be apprehended. The more obvious rights are these:

[1] *Theory of Prosperity*, chap. vi.

The right to security.
The right to publicity.
The right to an open market.
The right to customary prices.
The right to share in national prosperity.
The right to coöperate.
The right to decision by public opinion.
The right to wholesale standards.
The right to leisure.
The right to cleanliness.
The right to recreation.
The right of women to income.

The real dangers of state socialism do not lie in its bolder schemes, but in policies that appeal more directly to social sentiment. Opposition to banks, railroads and the trusts is not so much against the present form of these industries as to their high profits. We may expect a strong movement that has the equalization of profits as its ends, but there is nothing in such a movement that would lead to the nationalization of these industries. There is, however, danger wherever social sentiment is made the determiner of public policy. The strongest emotional appeal of state socialism is for pensions and for a minimum wage. The road to them has already been opened by our generosity to military heroes and by the precedents set by foreign nations. In the appeal of the industrially poor, however, we should not forget the long standing appeal of those afflicted with disease or inherited defects. The problem is not whether industry or heredity create the greater evils, but which of these groups of evils can be first attacked and removed. We know the source of hereditary defects and have also learned that they cannot be cured by environmental improvement. The defective and delinquent classes must be segregated if they are to be eliminated and thus a place made for a better stock. It is, however, a temporary burden to be removed after a generation of generous care and faithful attention. The science of eugenics tells us how to proceed and sound reasoning makes plain the social uplift that would follow its application. In this field a social appeal can be made fully as strong and more effective than in any other field. The sources of industrial evils are removed by altering the conditions under which industry is carried on. It is against these conditions that social sentiment should turn. Premature old age should be prevented rather than supported. Educating the young to avoid dangers is better than pensioning those who fall into them. Changes at the source of industrial evils effect more than the same effort in time and money used to alleviate the suffering caused by bad conditions. It is a good axiom never to act until the source of an evil is known and then to attack the source and not the result. Were this axiom acted upon we would first remove the evils due to heredity and then with a clearer vision reorganize industry so that the worker is conserved and elevated. We can

mold industry as we will when we see what form we wish it to take.

The general principles of coöperative action, however, are more important than their specific applications. Either majorities have the right to impress their ideas, sentiments and institutions on minorities, or social decisions need the approval of the groups affected by them. The one method is that of dogmatic impressment, the other of coöperative assent. There is no compromise between ideals so different in their origin and in their goal. Industry must square itself with other forms of progress, and as it does coercion and exploitation will be displaced by coöperative action. When the state merely registers what mutual assent has already attained, industrial peace will be as stable as international peace will be when arbitration is universally applied. Both fields demand the same methods: victory in either field will strengthen the cause of peace in the other.

XV

The Measure of Progress

Last summer I met a Second Adventist who, in harmony with the views of his sect, saw in the passing events proof that the world was approaching its final crisis. The Bible, history and current events were interpreted in light of the belief that they gave evidence of an immediate catastrophe.[1] To-day such views are striking because they are rare. Yet, odd as they seem, they are a remnant of old beliefs that before the age of science were generally held. No one then thought that the world or its civilization was enduring. Every one looked for signs of the coming end and accepted without question the various prophecies based on such data. A belief in progress is new. If man was made perfect and fell, tests of devolution constitute the only science worth investigating. The devolution of the Adventists has been discredited by the progress of science. Social devolution is even now a common belief. It colors history, gives rise to revolutionary views of politics, and makes economic doctrine pessimistic. Were it merely an academic belief, it might be left to die out in its own way. It is, however, an important element both in socialistic literature and in economic thought. That capitalism must go down in a tragedy appeals to an instinct too deep seated to be ignored. The same is true of the oft-stated economic doctrine that the resources of the world are diminishing, and that in the crash civilization will go down before some form of barbarism.[1]

While the orthodox economist and the socialist who use these pictures have a greater appearance of presenting the truth and state their arguments more in harmony with history and science, the sentiment they evoke is the same as that the Adventist arouses with his crude pictures of ruin and failure. They are pre-evolutionary views, appealing to fear and wonder, and resting on a confused statement of the facts.

Such views are hard to controvert because of the crude logic their advocates use. They review current events for evidences of disaster and then

[1] In this connection, the reader should compare Professor Patten's *Product and Climax*—R. G. T.

by an accumulation of historical data, create a picture of misery and failure. If their view is opposed by a presentation of the happier phases of life, they call their opponents optimists. Scientific economics is thus made to consist of depressing facts that call for forceful action. If the optimism of Godwin and Owen is put against the pessimism of Ricardo and Marx, it is, indeed, hard to decide which is the better. They both assume that happiness is the normal state of all men, and then they try to show how social institutions fail to secure it. But is the contrast thus made valid and fundamental? Are men either happy or miserable or are they under ordinary conditions both happy and miserable? If the latter is the reasonable attitude, evidence as to the happiness or misery of mankind is beside the main issue. There are no valid tests by which pleasure and pain can be quantitatively compared. The individual judgment is usually clear, but we have no comparative means of measuring happiness and hence the judgments based on such evidence are not of much consequence whichever side they are on.

Believers in progress are not in the same position to-day as they were in the age of Ricardo and Marx. The theory of organic evolution has been unfolded and from it come tests both of evolution and devolution. A theory of progress should now start not from surveys of happiness and misery, but from the evidence of the general evolution in which both men and society have a part. From this it will be seen that struggle brings both happiness and misery—happiness to the successful and misery to the vanquished. The presence of misery is, therefore, no evidence of the failure of evolution. We evolve through misery as much as through happiness. It is only the abiding effects measured in physical units that tell which force is dominant, and to these tests we should turn to decide the truth or falsity of human progress.

If socialists had formulated a law of the persistence of misery instead of the increase of misery, they would have been on safe ground. We know that misery persists but we have no measure of its increase. Happiness tests have been displaced by evolutionary standards which are capable of definition and measurement. Changes for the worse in physical conditions are likewise no test of devolution. They accentuate struggle and hasten the elimination of the weak. Nor can we infer retrogression from deductions based on the law of diminishing returns. Professor Carver in a recent article[1] gives three *a priori* tests of diminishing returns and hence of retrogression: the spread of population, the concentration of population in cities and the introduction of inventions. He contends that population would not spread, cities would not grow nor would inventions be made unless they were forced by a pressure of deficit. They are thus evidence of increasing misery and represent what mankind should avoid. Such a position is pre-evolutionary. If an animal spread over a continent, a biologist would assume that it was improved by the change. So, too, the pres-

[1] "A Bugbear to Reformers," *Popular Science Monthly*, May, 1912.

ence of more animals in a locality or in closer relations to each other would indicate not degeneration but the evolution of new psychic qualities. Invention is also an index of greater mental power and not of greater devolutional pressure. That the spread of population and the growth of cities often increase misery may be readily admitted without in the least impairing the proof that progress is also taking place.

Devolution cannot be predicated from a knowledge of environmental conditions no matter how poor they may be. No accurate measure is possible until the reaction of the animal to this environment has created definite structural modifications. Devolution is a matter of animal structure and not of environment. It is retrogression without growth. Of it there are two tests, revision and retardation. Animals retrogress by going back to some ancestral form, or they are retarded in growth and thus do not attain a full development. Devolution does not create new forms: it revives old ones and prevents the appearance of the higher attributes. Degenerates should be cared for and finally eliminated, but their misery should not be added up to arouse social sentiment or to determine the effect of social change. We cannot measure devolution in terms of civilization, of happiness and misery, of wages or of poverty. The evidence of statistics and history is poor when compared with that of biology. The burden of proof is thus against those who would show an increase of misery without some compensation in growth or in social uplift.

In changing from the consideration of devolution to evidence of progress a contrast must be made between political stability and social evolution. The danger of political instability has been so great and its evils so manifest that political theory has evolved as a theory of stability rather than of progress. Political stability has arisen in modern nations by substituting majority rule and average happiness for the cruder tests of numbers and strength. Political theory assumes that an equal distribution of happiness gives greater security than its concentration. Wage theories and subsistence theories have thus arisen through which the equality of man has been proclaimed. The doctrine that every man counts for one, checks aggression when applied to food and wages. It leads, however, to a pure individualism in which group action has no place. Society is changed from an organism to a mob, thus checking the rise of social sentiment through which a higher unity comes. From brute strength to majority rule is progress, but still more comes when minorities through compromise and toleration displace the need of majority coercion.

When the difference between political stability and social evolution is recognized, the need of a new measure of progress becomes apparent. We assume that when men have equal income, they are equally happy. While this political axiom leads to political stability, it does not help to create new adjustments. To get evolutionary tests, we must start from the physical tests that have back of them the authority of science. Thought, motive and product, although indices of a higher mental life, are not measurable

in masses so that a transfer may be made from individual judgments to social predicates. The one sure test is the structure through which they arise. If structures, mental, physical or social alter, we may be sure that a racial evolution has taken place. To accurately measure thought, motive or product, we need a complete record of all thought, all activity and all products. Such history and such statistics are impossible. The history we have is a record of social struggle and not of human activity. Few would claim that the tabulated statements of thought, action and wealth are accurate enough to make them available for social deductions. Fortunately, however, there is one test that abides and reveals the net result of all past action. Structure evolves through pressure of thought, motive, action and product. What people do becomes history; what they get becomes happiness: the abiding effects of what they do and get become social structure. Action in social terms is character; product ensures happiness; neither of these is inheritable. Only structure is passed along and modifies the race. For this reason social measurements improve as they pass from activity to the product of activity, and from this product to the structure that shapes the activity.

The first test of structure is its activity. The more active are the more advanced in organization. The second test is in surplus. This measures the economy of effort and the excess of return over cost. The third test is invention. This is the measure of progress in thought. The fourth test is wealth. It shows the structural changes in the environment which remain to aid future generations. The fifth test is the growth of will power. Will is more than the abstract power of choice. It is surplus energy moving through improved mental mechanisms.

Social changes should show more than the physical background in structure and yet should be directly related to it. Viewed in this way the first social measure of progress is the desire for intenser forms of happiness in the place of quantitative satisfactions. The second is the removal of fear. The third is the stability of social institutions. The fourth is the growth of voluntary associations. The fifth is the growth of the spirit of toleration and of decision by compromise instead of by struggle. Each of these changes indicates a growth of social structure and an advance in social evolution. There is no mechanism for social degeneration. If it comes, its source is not in society but in its physical background. No social evidence can prove decay except as it corroborates what physical retrogression has made plain.

Progress in these physical phases is beyond dispute. The burden of proof is against those who use historical examples or a crude tabulation of social facts to disprove what more fundamental evidence shows to have an evolutionary support. The new tests are so plain that they can readily be set over against their pre-evolutionary predecessors. Thought is being modified to meet the new conditions even if it has not gone far enough to give the new an irresistible force. This point I shall not argue but will illustrate by putting in contrast the older and the newer tests of social improvement.

	Old Test	*New Test*
In life	Happiness	Health
In physical superiority	Strength	Endurance
In mental superiority	Understanding	Originality
In production	Population	Wealth
In social organization	Liberty	Coöperation
In character	Integrity	Efficiency
In rivalry	Brutality	Manliness
In disposition	Amiability	Generosity
In logic	Dogmatism	Pragmatism
In business	Shrewdness	Squareness
In art	Appreciation	Expression
In religion	Submission	Inspiration

All these tendencies have a common source and a common measure. They show the trend of progress and put its result on a firm basis. The lesson is plain. Prophets of disaster are a remnant of an older epoch. The new economics rejects superficial facts and the dogmatic attitude they presuppose. Its evidence is corroborated by organic changes that cannot be reversed by the effect of occurrences of present interest but of no permanent value.

XVI

The Outlook

While I cannot claim to have made a complete restatement of economic theory, enough has been given to show the nature of the thought transformation now taking place. It is essential to recognize that we have passed from one epoch to another and that our principles and facts must be correspondingly modified. We live in 1912 but think in terms of 1848. This is due to the fact that several men then expressed the dominant tendencies so forcefully that their mode of thinking has been impressed too deeply to permit current facts to have their full weight. The past epoch was one of natural and class readjustment. It intensified struggle and aroused class antagonisms. It is a mistake to give much weight to the evidence of this epoch: its appeal was after all local and temporary. It is even worse to attribute the thought development to any one man. Marx was as much a creature of this environment as was Mill, Carlyle or Carey. They had the same facts before them and acted on common principles. Their differences are details for their followers to wrangle about. Their similarities are a common heritage forcing us to act in a different way from what we should have done if this epoch had not remodeled social concepts. The national and class readjustment has now taken place, struggle has been limited, and national sentiments are turning into new directions. We can, therefore, tell something of the trend of events and of the forces now in the making.

Two results of the preceding epoch form the basis of the anticipations I now venture to give. One is that political stability has been secured. All of the nineteenth century thinkers were filled with dismal forebodings as to the stability of modern nations, and this fear had much to do with the forecast they made. Mobs can now be as readily handled as could an attempted invasion of barbarians. The fall of civilization from either of these sources is no longer to be dreaded. Nations and classes are stable units. It is economic fact, not brute passion, that now determines public opinion.

The second fact equally apparent is that we have entered a new epoch. The industrial revolution through which modern nations have passed has had four recognized epochs. The first may be called a national economy and in it the mercantile school voiced the demand for local industries. In the main this economy was due to the division of labor and to the spread of industry to new regions. The second epoch was that of free trade, in which England comes to the front as the representative of advanced industry. The third epoch was an economy of unused resources: during this epoch there was a spread of agricultural population and the rise of new nations, of which America is the prototype. The fourth epoch was that of large production, in which concentrated wealth became the controlling power both social and political.

If these epochs had brought industrial evolution to a close, the anticipations of Marx would have been realized. The poor and the rich would have been isolated and all struggles would have resolved themselves into a conflict between the two. But evolution did not stop here. We have entered into a new economy in which personal and local advantages are exploited as effectively as were the centralized advantages of the last epoch. The present struggle is not between the rich and the poor but between centralized and localized wealth. Personal and local advantages are much more numerous than are those on which the success of the great industries turns. Political control is thus in the hands of those interested in local industries and in personal income. Under these conditions, the old contrast between the rich and the poor has ceased to be vital and in its place will come a new alignment of the social groups.

To determine the changes that will thus be wrought a more definite theory of progress is needed. Prediction in the past has been prophesy based on historical interpretation or the picturing of Utopian ideals. More definite measures of progress than either of these are now available. Progress can be measured through the increase of wealth, thus giving a material interpretation: it can be measured through the structural changes that evolution has wrought; or it can be measured through the social control of classes or races.

Social control is the repression of the weak by the dominant. Acting through acquired characters it makes no structural change. Any shift in industrial conditions or in the location of natural resources can bring a new class to the front and with their ascendency a new form of control

is exerted. Of these forms of control, democratic control, which is the control of numbers, is especially important. Democracy has adopted without question the ultilitarian axioms and thus has accepted the quantity and distribution of happiness as the measure of progress. Every one in this calculus counts as a unit and no one as more than one. With happiness measured in material goods, this standard makes the distribution of wealth more prominent than its production. The control of income seems a social necessity and with it arise new functions for the state.

Social control rests on opinions and not on social structure. It is a development of thought and not of activity. It is hard, therefore, to predict what changes in control will be made other than that utilitarian control is likely to undermine the control of precedent, tradition and wealth. This would create a simpler society than we have at present, but it would not be a final nor even a stable form of society. Structural development would continue and, with each marked change, opinions would alter and thus create a new form of control. No measure of progress is, therefore, valid that does not recognize the need of structural change and the fundamental character of alterations made by it. Opinions about progress are of little consequence unless we can show structural changes that bring what we predict.

Such statements seem vague, but they are readily transformed into objective standards. Social structure shows itself in three definite forms: in health, in wealth and in culture. We cannot tell how happy a man is, but we can determine the state of his health. Income is a better test of welfare than happiness, but it is not so accurate a test as health. The activities connected with production are predetermined by the situation in which it takes place. Distribution, however, is a matter of opinion. There are no income structures to shape its distribution as there are productive structures to create it. Structural activity produces wealth: men distribute it. This is a revised statement of Mill's introduction to his theory of distribution but it is no less true in its new form than in the old.

We think of culture as the final product of civilization and not as one of its elements. Yet if we look at the facts, we find that culture is an index of activity, not of ancestral tradition and opinion. Social tradition has been broken more in the field of culture than elsewhere. It is no longer the admiration of the old or of the foreign but an intenser form of enjoyment than that yielded by traditional pleasures. Wealth is the consequence of effective activity in production. Culture is the result of more satisfying combinations in its consumption. Both are in a like manner determined by structural activity. Every new product modifies the direction which culture takes.

In former descriptions of progress, I divided it into two parts, a pain economy, in which fear and suffering drive man to his daily tasks, and a pleasure economy, in which the motive of action is the pleasure derived from the goods enjoyed. I now regard this division as defective. To love pleasure is a higher manifestation of life than to fear pain; but the pleasure of action is in advance of the pleasure of consumption. Action creates

what pleasure uses up. This would divide progress into three stages: a pain economy, a pleasure economy and a creative economy. Each stage has its own mode of thought, and its own social institutions. To visualize the elements of these stages, I have put them into the following table:

Stage of Progress.	Form of Struggle.	Form of Control.	Character of the Social Bonds.
1. A pain economy.	Race struggle.	Ancestral control.	Blood bonds.
2. A pleasure economy.	Class struggle.	Wealth control.	Interest bonds.
3. A creative economy.	Self direction.	Character control.	Social beliefs.

Type of Thought.	Thought Limitations.	Kind of Philosophy.	Type of Morality.
1. Theological.	Substance.	Anthropomorphic.	Traditional.
2. Rational.	Space.	Material.	Utilitarian.
3. Pragmatic	Time.	Ideal.	Telic.

The transformation of activity and thought which this third economy imposes has already taken place or at least the change has gone so far that its outline is manifest. It is more difficult to predict the uplift in sentiment than it will bring. The emotions of the older epochs were centered about religious and race antagonisms. Evils have been clearly perceived objects with definite local manifestations Heroes and gods also made a personal appeal and kept the emotions too specific to bring out their social possibilities. To build up social sentiments demands the elimination of struggle and fear on the one hand, and of personal renunciation and hero worship on the other. Social life seems incapable of making use of these primitive reactions and thus lacks the effectiveness of the older, more animal, life. Neither the rational nor the utilitarian logic has ever done more than to arouse mild cosmopolitan sentiments that pleased the philosopher but failed to vitalize the man of the street and shop. For such a condition there must be a remedy if the new life is to arouse men as effectively as did the old. Sentiment and thought should not be antagonistic, nor should sentiment be crushed by the growth of logic and science. To prevent this catastrophe, *thought* must be reorganized so that its concepts create emotional reactions as definite and as prompt as did the vivid relations that *struggle* originated. Thought stimuli must be put in the place of sense stimuli, and thought ends in the place of the victory struggle sets as a goal.

A step has been taken in this direction by the shifting of interest from the past to the future. History is a history of struggle, and usually of defeat. By the emphasis it gives to retrogression and decay, it increases struggle and makes present personal success vivid and vital. The thought of progress gives a new turn to the emotions by giving them a new goal. We become social as we look forward; more animal as we look back. The dread of the future must be changed into an eager anticipation before the new emotions will be as vivid as the antagonisms that the past provoked.

From this it is easy to see why the future should become prominent in socialistic schemes before a like reorganization of the popular thought can take place. Progress cannot be visualized in past events. Its goal is

ahead and must come through a social reconstruction of ideals and a material reconstruction of wealth products. Progress is necessarily economic because its embodiment is material and environmental. Social antagonisms thus stand opposed to progress. From this it seems to follow that progress comes through emotional suppressions, thus creating the Utopian stage illustrated by the early English socialism. Marxianism is a reversion to the primitive attitude and the acquisition of a driving power in class antagonism. Socialism has not, however, abandoned the earlier ideals, contradictory as they may be to the material tendencies of Marx. Back of conflict loom up clearly defined pictures of social unity which give a charm to modern socialism even if the clearness of the picture is dimmed by the terror of the immediate struggle that is to bring them. Socialism is thus a half-way house from the old to the new. It unites the beauty of what is to come with an emotional awakening evoked by past conflicts. To look both ways and to get inspiration from both views is contradictory but effective. Purely Utopian reconstructions do not arouse vivid motives to action. Cosmopolitan progress and utilitarian measures fail because they evoke no emotional machinery to carry men toward the ends they seek. A goal less vague than the cosmopolitan and more social than personal ends must be outlined before sentiment and thought can direct activity toward new ends as forcefully as the old ideals did.

I reach this conclusion by assuming that surplus promotes activity and that activity transforms the natural surplus into wealth. With wealth come price relations through which ancestral control is broken and wealth control put in its place. Price relations give rise to budgetary concepts. In the endeavor to bring the family budget to an equilibrium, activity is increased and consumption is put on a cultural basis by increasing the intensity of new wants. This brings on a self-repression which is the essence of character building. The struggle for supremacy is now changed from a race and class struggle to an internal struggle for self-control. Primitive feelings and instincts are repressed, sex and appetite are curbed, and cultural motives replace the older sentiments due to race and class antagonisms.

These newer struggles are growing elements in English and American life. A higher culture will result that will make decisions individual and personal rather than racial and class. There will be no unity of race, of language, of history or of ancestral tradition, but there will be a new type of man forced into a common mode of living by his culture, education and activity. Such a civilization is a reality among the English-speaking peoples and its spread to other races and regions is only a matter of time. To make its reality apparent, and to give it an emotional force, it needs a name which it now lacks, for the many nations and regions to which it has spread keep any historic name from being appropriate. To call it English or American is to prevent the united appeal which is so much needed to give it force. Anglo-American has a racial limitation that must be avoided. As a mere suggestion that may lead to the adoption of some appropriate term, I offer the word "Angloid," which seems to come nearer to what is

wanted than any other term. It implies a heterogeneous origin and thus seems weak, but this weakness is a real strength as it permits a fusion of all elements making for a higher civilization and an energetic personality. The unity is in the type, the culture and in the resulting character. We progress not through an heredity but through our improved environment.

With or without a name, this new civilization will impress itself more deeply on the coming age. The new and the old types of culture, motive and character are bound to come into sharper conflict as the century advances. The older tendencies are coercive and will strive to impress themselves as state socialism. The newer forces will express themselves in voluntary association. It will be a struggle of tradition, race and class with the blending influences that make for unity and character. The history of the coming age will be a chronicle of such results as a future historian can describe better than an economist can predict.

THE BASIS OF NATIONAL SECURITY[1]

ALL America is united by common interests which are clearly defined and distinct from those of other nations. While we recognize this fact, the principles involved are so imperfectly worked out that we fail to see either the grandeur of our culture or its defects. The traditional elements of culture, the tribal rites, and the battle cries of particular epochs are emphasized out of all proportion to their importance. They cause us to submerge general principles and lofty ideals under the chaff and débris of fresh emotional outbursts.

Our culture is not a homogeneous growth based on home experience, but is the product of foreign thought consciously imported and yet made vital to us by our own experience. We are thus prevented from seeing the essence of these importations and distinguishing the husk from the kernel. Our early culture came in the form of Christianity, whose basal concepts are brother love, sacrifice, conscience and charity. There are, however, two varieties of Christianity—the pure and the composite. Organized Christianity has through the centuries received mixed currents of thought from outside influences; as a result it is possible to give an interpretation of it that makes the foreign elements overshadow the real essence of our culture. The old and the foreign have not been displaced even by the radical reformer. We find, therefore, a political admixture that becomes dominant whenever state needs dominate over spiritual ends. Peace in the one sense is meek docility or the absence of the spirit of rebellion. In a pure Christian, peace is a state of mind, a freedom from external coercion. In its secondary sense it means a harmonious life coupled with a perfect adjustment to vironal conditions. Force and peace are contrasts, the one being the essence of political domination; the other a rule of conscience, a flow of feeling and a joy of adjustment.

Discipline as a political concept means a subordination of interest and life to some superior: to those accepting the pure Christian view it means a unity of action for common ends with nothing of the docility that aristocracies have forced upon the world. Courage may be a tribal impetus to kill and hate or it may be the will to resist aggression; conscience and duty are thus made controlling motives. No group ever met death more courageously than the Christian martyrs of all ages. They died not for party or clan but that "all might live and have life more abundantly." Such is the essence of our religious inheritance and the conflict that rages within it between the discipline of love and that of war. It is the rule of oriental despots contrasted with the freedom of emotion and conscience.

[1] Reprinted from *The Annals of the American Academy of Political and Social Science,* Vol. LXVI, pp. 1–11, July, 1916. [Considerably altered in this printing, R. G. T.]

As in religion, so in government we find a composite view contending with pure concepts that are the outcome of our racial experience. Representative government is our great contribution to the thought of the world. Our victories have been those of thought over force and yet the advocates of brutal suppression are always present, and in times of danger they force measures on a reluctant people that their better judgment opposes. We are too close to the arrogant suppression of the South during the Reconstruction epoch and to similar atrocities committed by England in Ireland to be blind to the results of force when race or party passion gets the upper hand. Yet no American would point to this epoch with pride nor is there any Englishman who would declare that similar deeds in Ireland represent the flower of our civilization. We do not always rise to the full height of our possibilities, but the trend of our civilization is against the suppression of thought and freedom. It is this record and its benefits that our excited martial friends, yearning for a return of old methods, would have us repudiate. Force, they think, must be used when persuasion fails to bring immediate results.

Before discussing the need of thus reversing our cherished notions a third element in our cultural advance should be formulated. Here we find a principle, scarcely recognized, which must in time become the corner-stone of democratic culture. "Home rule" is a term we apply to Ireland that as "states rights" has had a place in American thought; yet these notable instances are but examples of the new way of making public decisions and of securing popular control of our diverse activities. As the state grows it takes on economic functions; these must be distributed between the nation and locality in a way that narrows the scope of national domination and broadens that of local control. The community is the old tribe revived under new conditions. It should be given a chance to develop and bear its legitimate fruit. Local uniformity differs from national coercion in that the individual can choose his group. When among others who are like-minded, he can intensify group feeling and attain his cherished ends without thwarting the like desires and aims of other persons. The freedom of the individual is not the freedom of anarchy but a freedom in choosing residence. His town, his trade, his cultural institutions dominate him not through force but through their attractive power.

These are the maxims of the new patriotism, the flower of democratic advance. They mean that every region has its common interests and the right to advance them by group action. The doctrine of "states rights" is a crude expression of a great principle partially seen and often wrongly applied. Our larger states are dwarfed nations that use coercion with as little restraint as an Eastern potentate. Their minor powers should be given to the locality and the broader economic functions given over to the nation. Then we might with truth claim to be a democracy and inaugurate a rule of love instead of force. The nation's power would then be limited to fields where our interests evoke our assent and each locality would be a group of like-minded persons among whom a common culture could be

attained by the growth of higher motives. It is these ideals that our supermen, our incipient aristocracy, and our military enthusiasts would destroy. At least they contend that such ideals will fail to carry us safely through the present world crisis.

Nor are the advocates of controlled peace in a better position, although their philosophical errors come from another source. The real victory that our culture has won is different from their conception of it. We have progressed not as majorities enforce their mandates—at the expense of minorities—but in proportion as rights are accorded to such minorities. It is the dominant who yield in each new elevation of culture. We change from a material control to a spiritual control as majorities cease to impose their will on their opponents. The real victory of the North in our Civil War was not when Lee surrendered but when the Northern soldiers were withdrawn from the South to permit the former rebels to control their local governments. In the Boer war the victory was in the restoration of the Boers to power and not in their forced submission. The Catholic emancipation and Irish Home Rule mark epochs of progress that overtop the defeat of Napoleon. It is not enforced peace, but enforced restraint of majority action, that is our glory. We are rightly proud of our bills of rights and constitutions but what are they but restraints on majority actions? Shall we violate this glorious record by imposing our ideas and political mechanisms on unwilling nations; or shall we permit them to solve their own problems in their own way?

It is an essential thought in all peace propaganda that tribal animosities should be displaced and that groupal emotions should be reorganized around new centers. These emotions find a fitting outlet in home and city life where their full expression is in harmony with the expressions of the larger units with which they should coöperate. Groupal feelings thus have their direction altered, but the ultimates of human nature that lie back of them are unaltered even if we are not conscious of it. In emergencies their force is unabated, essentially sound and protective. The most fundamental of these is self-protection. In a crisis the instinct of self-preservation rightfully dominates and its decisions are not only not adverse to peace but actually its best mainstay. What I do because I must, always excites admiration and never distrust or animosity. It is the premeditated injury that is resented and becomes the basis of indignation if personal, and of race feuds if national.

Every man and nation must at times exercise instinctive defense which must be judged by the momentary situation and is highly moral if the motive is self-protection. It is one thing instinctively to resent an insult to wife or child and quite another to carry arms for fear they may be insulted, if every one carries arms to avenge insults or to uphold honor, more people will be killed in useless disputes and for imaginary insults than will be saved from real injury. Consciously to prepare is to degrade social life to the level of a border town. With nations also it is ones who go fully armed who invite trouble, not those who rely on instinctive protection. The

present war is a good illustration of how preparedness adds fuel to passions and makes conflict inevitable. Vigorous, instinctive self-defense is moral and righteous. Often bold and seeming arbitrary decisions must be made and severe penalties must be enforced. But the decision and the enforcement must be instinctive, coming from an aroused spirit of humanity and not from musty codes or antiquated precedents. The case is given away as soon as argument or threat begins. But such instances will be few. The mainstay of peaceful measures lies in the opposite plan of a thorough understanding and of a conscious yielding of many legitimate rights so as to gain the most essential ends. Even our wrong opponent has himself been wronged and these wrongs must be righted before we seek to impose a penalty.

In primitive communities isolated from each other and without industrial intercourse the conflicts are either over favorite areas or arise from race hatreds. The antagonisms between tribes and nations are thus fierce and frequent while the social bonds are weak or non-existent. Defense is therefore urgent; an appeal to common ideals impossible. That religion and morality under these conditions should become tribal is perhaps necessary. It was inevitable that martial ideas should become mixed with the real tenets of our religion; and this gives an historical basis for a militant church. But this justification has lost its basis. Commerce and industry have bound the world into a homogeneous unit. Economics can be trusted to uphold universal peace and give it a better basis than martial ideals. The real protection of each nation is the interest other nations have in its welfare. Thought is now based on universal premises that all accept and on policies tested by recent experience. When to these are added the influences an enlightened self-interest imposes, we have a basis of peace that only some fierce revival of tribal emotions can break. Steadily these new forces are gaining the upper hand and so modifying our emotions that morality and culture make a common appeal and buttress each other in the suppression of primitive passions. Religion can thus free itself from the gospel of hate and purify itself from the dross of martial concepts.

We must not, however, go too far or too fast. There are negative factors that demand consideration in the formation of a national policy which if neglected make more trouble than if consciously faced. The most persistent of these is fear—which is all the more dangerous when without any basis. America to-day may not be in danger of invasion and yet a panic of fear may be fanned into active existence by a sensational press from vague rumors. A vivid description of how New York may be captured can upset the nerves of the nation without a single foe being in sight. Just as locking doors at night makes one feel safe even if it is no guarantee of safety, so national defense is necessary, not so much to ward off danger as to suppress our inherited timidity. The problem of national defense thus becomes a legitimate one even to one who feels no danger and who believes that religious, moral and economic forces are our best safeguards.

The difference between a pacifist and an emotional patriot is not in the

altitude toward defense but in the bases on which defense should rest. Two of these bases are sound even in the most advanced nations: first, the best defense is an instinctive defense based on our primary reactions and not on premeditated plans. The prepared nations will get into trouble oftener, do more bluffing and suffer more in the end than those who act only when they see that some wrong has been committed. Be sure there is some clearly defined cause and then act quickly at any cost until the end is attained! The action of the North in our Civil War is a good example of the virtues and failures of instinctive defense. No one would deny that this action was wiser and more democratic than would have been any amount of conscious military preparation. But something is involved in instinctive defense which most people overlook when the principle is applied to national affairs. No preconceived restraints, no traditional policy, no antique notion of law or right should check the alertness or vigor of effective national protection. Any real danger must be instantaneously guarded against not merely by negative measures but by positive attack.

The second principle is: that, for America, a naval defense is much cheaper and more effective than is a military defense. A serious mistake is made when military and naval defense are assumed to involve the same principles. A naval war could be carried to a successful conclusion without any disturbance of industrial life. We need submarines and fast cruisers, not battleships. If we had the fastest cruisers no fleet could approach our shore. It is the transports in the rear and not the battleships in the front that are the real danger. How could a foreign army be transported across the sea if our ships were fast and our submarines efficient? The popular picture of a naval fight is that of two groups of battleships struggling for the mastery. But why should we submit to such a test? To fight effectively is to make the ocean dangerous and not to use up all our strength in one naval battle. A discussion between two admirals as to the tactics of a recent naval review illustrates this principle. The umpire decided against the fleet defending our coast on the ground that its commander divided his fleet to gain the rear of the invader instead of fighting an open battle for the mastery of the sea. The difference between the "stand up and fight" policy and a Fabian policy is as old as warfare. Which of the two is superior can be determined only by the actual conditions in a given case. It is important, however, to notice that the "stand up and fight" policy, noble as it seems, would cost the country billions of dollars, and if its one glorious battle went against us, would expose us to tremendous losses. The other policy would not prevent some small ports from being destroyed but would prevent any serious invasion. An umpire of this sort in command of a battleship might do himself honor, but the naval policy of America ought to be entrusted to other hands. The real fighting should be done a thousand miles from our shore by single ships that can strike unexpected blows and successfully escape if faced by a superior force. Such a defense would not be costly. Less men and money would be demanded than we now use. But to be effective, naval action must not be hampered by techni-

calities that make instinctive defense impossible. The evil of the rules of naval warfare that our President seeks to establish is that they would take from us our most effective means of defense when a real danger arises and make a large army necessary to protect our harbors. If unhampered, our present naval budget would give protection against every nation but England. It is not our own shores that are costly to defend, but our outlying possessions and their defense demands a change of policy rather than more expenditure.

Two policies are open to the United States. We may give up the Monroe Doctrine and yield our outlying possessions. Then our defense by fast cruisers and submarines is simple, effective, and not burdensome. But if we wish to retain the Monroe Doctrine, defend the Philippines and influence China or adopt any other aggressive policy, our problem becomes the same as that of England and demands a joint control of all oceans. England's supremacy at sea has not been questioned during the present war nor has she been in any real danger of invasion. It is only her entangling alliances on the continent that have caused her present troubles and brought out her deficiencies. A joint control of the ocean by Britain and America means no increase of present naval expenses and would permit a large decrease of army expenditure. Such a policy would mean dividing the world into two parts, one of which would be under Anglo-American control. This would include the British Isles, America, Africa, India and Australasia. All these can be made safe by a control of the sea. They form a natural unit where democratic ideals have ample scope for expansion. If we put the defense of our ideals above our material needs an alliance with Britain is the only logical procedure. Their defense and ours must run along the same lines and demands a full control of the seas. He is an enemy to our liberty who contests this control and his schemes must be thwarted without delay.

To restate this thought in more general terms: there are three fundamental psychological reactions that statesmen neglect at their peril. They are instinctive defense, instinctive fear and the instinctive yearning for groupal relations. Our political philosophy tries to make us think of ourselves as individuals, but it is a defective philosophy at best and mere intellectual dillettantism in its ordinary forms. From this philosophy we are breaking; and natural groups, home, church, school, trade, locality, and nation are being formed that dominate the individual in spite of himself. For the same reason any cosmopolitan scheme is without any vital force and would be disregarded when groupal interests opposed its formulas. In culture, language and institutions our groupal feelings bind us to England and it will be easy to form the adjustment, political and economic, that will give this groupal feeling full play. But a controlled peace for the whole world is a paper scheme based on false principles. It would involve us in difficulties instead of avoiding them. But if we act groupally our defense must be instinctive, safe and practical. We cannot be a Don Quixote defending

small nations or antiquated political concepts. Nor can we be controlled by a maudlin sentimentality that prevents effective defense or makes it costly. We need to guard our culture, our liberty and our institutions as effectively as the Germans and have the same lofty ideal of the subordination of the person to the state. But we want an Anglo-American state free from the taint of military domination.

The principle of national preservation is not different from, but is in essence the same as, that of individual self-defense. It is supreme in moments of peril and to it for the time all else is to be subordinated. What we need is not its denial but its stern application to our present perils and needs. Shall we, aroused by sentimental emotions, try to protect a few excursionists whose curiosity leads them into the war zone, or shall we say that the control of the sea is as vital to our liberty as is the control of land to Germany and give warning to all nations that we do not mean to remain passive if a hostile nation threatens our integrity? Where does the defense of America begin—three miles from our own coast or three miles from the Japanese, German or any other coast from which a national peril may loom? Shall we go to antiquated principles of international law for the basis of our defense, or to the instinctive reactions that Nature has planted in our heredity? Shall our defense conform to our psychological inheritance or to our philosophies? Any foreign policy is wrong that conflicts with ultimate realities and seeks to put up barriers that in the hour of national peril we should be forced to repudiate. It is only fair that we give others the same right of instinctive defense that we will demand for our own defense. Present yielding will give future stability. Better a temporary loss than the establishment of false principles.

The vital point in this position turns on the difference between military and naval defense. The one is a useless extravagance, a menace to national liberty, and would be a blot on our culture. To impose a military discipline on the American people would be to imitate the worst features of German civilization, with all the evils we deplore. The docility of the trained conscript is the real danger. We have enough of this personal humility and servility without enforcing it by a national discipline. Naval defense does not involve these dangers. The expense need not be above our present expenditure if the cost of the army is kept within proper bounds. Should England and America unite in a common defense, large sums could be saved. It is not our defense but the attempted control of other civilizations that would debase our ideals and in the end lead to bankruptcy.

The essence of this position is that our culture rests on five distinct principles which often conflict but yet have in time been blended into a harmonious whole. These are Instinctive Defense, Brother Love, Representative Government, Home Rule and Economic Interests. Thinkers and writers arrive at different conclusions as they give emphasis to some of these principles at the expense of others. The main distinction, however, is between those whose thought is purely a result of national experience or

of older thought verified by recent events, and those whose minds are so cramped by book knowledge that actual experience seems but a defective guide. The hybrid thinker knows much of Greece, Rome, Germany, France and Russia and goes to them for his ultimate catagories. Or, he accepts a view that elevates English thought to a dogmatic eminence and thus neglects the vital reactions of the American people. While akin to the English, our view and experience is really saner than theirs, because less disturbed by abnormal conditions and antiquated traditions.

Our ultimate choices are therefore simple and make only one of two alternatives sane and rational. We must either emphasize Brotherly Love and rely on its winning power or we must take Instinctive Defense and Economic Interests as our guides. With love as a dominating principle, we can remain in isolation, relying on Good Will and International Brotherhood for our protection. Should these fail or seem likely to be insufficient, an alliance with England is the only practical defense open to us. Her problems are the same as ours; her culture is our culture and her defense involves the same measures which we must adopt. Together we could defend one half of the world without any resort to a military discipline that would be destructive to liberty and economic prosperity. The world would be then divided into three economic zones, Anglo-American, Continental Europe and Eastern Asia. There could thus arise three isolated civilizations with economic interests that would not seriously collide. It is only when we seek to stretch our control over antagonistic races or seek to dispute their ascendancy on their own territory that we evoke formidable opposition and thus force upon ourselves the need of a military organization more destructive to ourselves than to our foes. The great evil in the world is not war but the docility that martial discipline imposes. It is better to be free than to be dominant, even if the latter has the glitter of world uniformity.

This new patriotism I would define *National Pacifism*. The contrast is a triple one in which the brooding alarmist is at one pole and the international socialist at the other. The middle ground is a national organization quieting instinctive fear and promoting industrial efficiency. By increasing income, by coöperative living, and by spreading justice, our emotional nature may be brought into harmony with culture, science, and brother love. As men sink below the normal their fear, hate, and passion rise as awesome specters. There is a like danger from a dominance of the intellect. Rationalism, utilitarianism, cosmopolitanism, and other varieties of international thought create an opposition between heredity and culture. No one can be properly called a pacifist who ignores human nature so completely as to make it rebel against his schemes. More than the meager ties of speculative thought are needed to bind men in effective units. The national, the local, and the economic are the forces through which our heredity has developed, and they alone are capable of firmly protecting normal life. To them we must look for the broader view and solid basis on which our advancing cul-

ture may rest. Race, hate, and fear disappear when normal men are reorganized along economic lines. The old patriotism had them as its main agents; the new must be their bitter foe. Brother love and economic cooperation are the two elements which, united, give the true basis of nation and patriotism.

PEACE WITHOUT FORCE[1]

THE program outlined by the President in his address before the Senate on January 22 seems to be a break in national traditions. In reality, however, there has been no break, but a fulfillment. What Washington said, what Monroe said, what Lincoln said, is said again by President Wilson more clearly and more in harmony with the actual trend of events. The thought of the fathers should be perpetuated but we should not be slaves to its formal expression. What they wanted we want, but new conditions force us to adopt an attitude in harmony with the closer relations in which the world now stands. Berlin and London are not so far from us now as Charleston and Boston were from Philadelphia a century ago. If we needed state unity then we need world unity now to attain the ends for which our constitution was formed. Carried along by international forces, we have become aware of cosmic emotions but we dread the changes involved and fear to trust ourselves in untried waters. The transition has been made more difficult by the presence among us of false prophets who, under the pretense of an advance, would in reality drag us back into a preceding epoch from which we have fortunately emerged. To-day these reactionaries are thinking of fighting, of coercion, of elimination, of peace with victory and other slogans which make the shuddering citizen thankful for protection which wide seas afford. If the world is a seething turmoil, the more our isolation the better.

Beside these would-be warriors who would drag us into partisan struggles there is a group more modest, more peaceful and yet I believe a greater cause of the present confusion of thought than the advocates of war. The League to Enforce Peace seems an organization to promote harmony and doubtless this is the earnest wish of the promoters. But the average citizen thinks of the difficulty it would create. If we are to have an "enforced peace" America must enforce it. Who can tell what millions of men and billions of money will be needed to impress our standards on the world? All conquering races have worn themselves out in vain endeavors to enforce peace. Why should we try anew to do what other races have failed to do? Never was the world larger or more diverse than to-day and is not diversity more important than unity?

I do not mean to argue the issues involved. At bottom I agree with the doubting citizen rather than with our new group of social philosophers. If we are to convert the world to our view I prefer to send missionaries rather than soldiers. If ideas cannot cement the world even the hugest

[1] Reprinted from *The Annals of The American Academy of Political and Social Science*, Vol. LXXII, pp. 31–48, July, 1917.

armaments will fail. Guns may bring victory but they never bring peace. An armed peace is only an interlude between wars. Enforced law is hated law. Peace without victory abides through the spirit of brotherhood it engenders.

The advocates of peace with victory and peace without victory differ in their concept of human nature and of the motives that control men's actions. Doctrines about enforced peace take their rise from the philosophy of Thomas Hobbes. He regarded the passion for war as a fundamental human trait. In a natural state each man is at war with every other man. Security comes from the suppression of the natural instincts. The king, some ruling caste, some delegated body, must make decisions and enforce them against the natural inclinations of the unruly masses. Peace thus means submission, not choice. This philosophical view is buttressed by the doctrine of depravity that for ages dominated the theological world. It is firmly held by those who believe in an aristocracy or a cultured class to control the discordant tendencies of the public. Only by hardship and discipline can the waywardness of men be kept under control. When these fail as a basis of coercion there is the theory of backward races to invite aggression and to excuse the dominant races when they impose their will on subject races. All these views are the expression of the same philosophy and carry with them the same need of "enforced law." Is it any wonder that the American people should hesitate to enter a league of enforced peace if the mass of the people beyond their borders have the natural inclinations of the savage and can be kept in subjection only by the impressment of superior force? It may be a very moral task to hold a world in subjection, but the history of many failures of imperialistic ventures shows that enforced peace is a waste of blood and treasure. Why is not isolation better than domination if the hearts of men are as black as has been pictured? Is it not better to be in a happy oasis than to be engulfed in an eternity of strife and brutality?

I see no satisfactory answer to these questions except in another view of human nature. Is Hobbes right that war is in our souls and that peace comes from without, or does peace dwell within us while war, crime and vice are externalities imposed on men by the crippling power of supermen? Are the defects that make for war in men or in social institutions? Only as we discover what is external and thus imposed and what is internal and thus self-evoking can we know what plan to follow when we seek to improve either men or the conditions under which they live. To reach a higher state we must alter conditions if men are naturally good. We must alter men if they are by heredity bad. The two alternatives have little in common. Our institutions and behavior must conform to one ideal or the other and as we decide will we seek war or peace. Shall we rely on brotherhood or force?

It would take a book to discuss these problems but it should not take many pages to determine what behavior is called for by each plan. Either men love badness or are unwillingly bad. Government is coöperative good

will or an inhibiting force, just as war and strife, vice and crime are within or without. Either man is a brute vainly striving to rise or he is a rational being depressed by overpowering circumstances. If men are pure they need not the enforcement of peace but the displacement of external causes of conflict. Every depressing factor we remove makes a more normal man, a better adjustment, less friction and stronger bonds of brotherhood. Our problem is therefore to search for the disturbing factors that depress and through their removal secure the peace which by nature men crave. War is an acquired attitude; peace and sympathy are the natural expression of our emotions.

The external factors making for war come under three heads: repression, restriction and exploitation. The principal repressions are due to race, religion and language. Restrictions lie mainly in the sphere of economics and are designed to give some region or class a greater superiority of income and welfare than nature would give them. There is a long bitter history of these repressions and of the evils that flow from them. No nation or class is free from attempts to gain economic advantage at the expense of its neighbors nor is there any group who have not felt the force of imposed restrictions and resented the resulting evils. No nation is a unit of equal men. The few dominate at home as the more brutal dominate the world at large. With such a commingling of evils and misunderstandings is it a wonder that war becomes the expected state and that peace seems to be the dream of enthusiasts?

Repression and exploitation not only take from the injured the objective equality on which their happiness depends, but they lead to psychic degeneration. The loser in position also loses in character. All virtues are dependent partly on objective conditions and fade with depressions. Even the physical traits are weakened or disappear. And to these we must add disease, poverty, filth and starvation as causes of still other abnormalities than the original repressions create. It is not difficult, therefore, to account for the race and class antagonisms nor for the abnormality and degeneration that accompany them. What the spirit wills, objective evils prevent. Visions of beauty are transformed into the dross of the street; truth keeps us counting our woes instead of seeing the firm basis on which progress rests.

Our evils are not in a depraved human nature but in defective political institutions. The individual is protected against state aggression, the people against the king but there is no protection of the masses against the ruling class. We think of ourselves as a democracy and yet our traditions keep the masses from an immediate control of their destinies. Should we go to war to-day,[1] the decision will be made by people elected on other issues and not by popular assent. I find no fault with our President, but can we call ourselves a democracy when one man may plunge us into a war whose evils may weigh on us for a hundred years? If this be true of us, what can be said of Europe where millions of lives and billions of property have been sacrificed to the whim of the ruling class? No government asked its

[1] This article was written prior to the declaration of war.

people if they wished to fight: nor has a single national election occurred since the outbreak of the war to test popular sentiment. Not only is the war carried on without popular approval, but the conditions of peace will be determined and the distant future fixed before the people have an opportunity to express themselves. It is this distrust of democratic decisions that creates the barriers preventing world harmony. What evil from democracy could equal the failure of each ruling class to reflect the welfare of their own nation? We assumed that an aristocracy would at least protect the interests of property; but where has a mob shown itself so ruthless in its destruction? We have thought that the educated class would prove a barrier to passion only to find that the higher up we go the more vigorously has the flare of emotion expressed itself. Passion to-day comes not from the street but from the newspaper; its readers are not the despised mob but the arrogant rich and the reactionary bigot. If we want peace it is not human nature we must alter: nor is it mob rule we should fear. It is our tradition and antiquated class opinion that must be revised. We have changed the rule of the lawyer for the rule of the editor, the spoken word for the printed word, only to find that the passion of the reader exceeds that of the assembly. A demagogue as speaker can at most reach a few thousand hearers while an emotional editor can make a nation insane.

We do not reach the heart of the situation, however, until we realize that protection lies not in written constitutions and binding traditions but in clear ideas. We see to-day through yesterday's glasses and not in its own light. We might as well expect that the ideals of the Middle Ages would suffice to build a modern state as to assume that the ideals of the last two centuries suffice to create a present solution. Our great need is a self-enforcing peace—a group of principles that will work as successfully in world affairs as our constitution works in our internal affairs. We do not keep armies to maintain internal peace. It is not force but principle that keeps the Texan from destructive adventures. If he can be restrained by ideals that have no objective embodiment why cannot the same become true of Germany or Japan? What are these self-enforcing principles?

How can we build a supernational code that will be accepted as the moral code is accepted—a code that appeals to self-evident principles as does the Declaration of Independence? It will thus be the code of the school, the church and the press and be as unquestioned as the multiplication table. The violations will thus become like theft or murder, the sporadic outbursts of individuals suffering from some abnormality. Where they happen we must educate, not punish. If we treat the violators of the super code as wronged and right the wrong before we strive to punish, fewer violations of this code would happen than of the civil law. It is the failure to see how great principles would work in practice that creates the present confusion and thus makes for race antagonisms.

1. The first principle of a code of peace is that all decisions should be made by popular vote. The western world claims to be democratic and yet in no nation is democracy trusted. The result is that we have arbitrary

decisions made by a class, and often by a single person, that the people are forced to carry out against their inclinations. Should declarations of war be delayed until ratified by popular vote they would not occur. Popular decisions appeal to human nature and it is the same the world over. It is class decisions that differ and these we must avoid by taking from every class its power to override popular decision.

2. The second principle is equally important. Home rule must accompany popular suffrage to prevent national majorities from oppressing minorities. The antagonisms of race, culture, religion and language could thus be avoided and at the same time the peculiar exigencies of localities would be provided for.

3. The third principle is the freedom of the seas. The ocean is a common heritage that should be in the control of no nation or group. This freedom must be so limited as to enable every nation to protect its own shores. The recognized three mile limit will not enable this to be done. The controlled zone should be one hundred miles rather than three. Whatever the limit agreed upon, it alone should be the recognized area for warfare either offensive or defensive. If England extends her blockade of Germany one hundred miles from the German coast Germany should be allowed an equal area about England to establish her submarine blockade, and we should claim the same zone for our coast defense. But other parts of the ocean should be open to all on equal terms.

4. The fourth principle is that no nation should be allowed to enact export taxes on raw material. The natural advantages are so unequally distributed that a virtual slavery can be maintained if some world necessity were controlled by one nation or if a group of nations should conspire to control world commerce. Manufactured goods do not come in this class as they can be made anywhere with slight differences in cost.

5. The fifth principle demands a fair distribution of tropical areas among commercial nations. All nations need a tropical region to complement their home trade. Perhaps a third of foreign trade will be of this class. But there is ten times the quantity of tropical land needed to meet this condition. Cuba could supply the sugar of the world and either Java or Brazil its coffee and spices. Nations now monopolize land they will never use. When land hunger ceases a potent cause of war will be removed.

In regard to these canons of a super code, two questions arise. Would they, if adopted, suffice to uphold world peace and what means have we to encourage their adoption? It must be admitted that sporadic violations of the international code will occur just as lynching takes place within our country. It can, however, be questioned whether these violations would be of grave enough a character to necessitate intervention. All Americans recognize that lynching is a serious evil but most of them also think that the evils of lynching are less than the evils its suppression would impose. Not only would a standing army be necessary, but all our institutions would have to be altered to make such coercion possible. The League to Enforce Peace would find itself in the same position that the suppression of lynching would

impose. Without it we should have some local disorder but with it would come a coercion involving far greater evils. Most disorder could be avoided by the full application of the principle of home rule. What remains had better be ignored than suppressed. The evolution of cordial relations may be a slow process but it is the only cure of local antagonism.

The world acceptance of any view can come in one of two ways—progress by influence and progress by struggle. We have had many attempts to bring world unity by force: all of them have failed. America is a great nation, but it is far from that supremacy that would ensure world domination. Should we strive to dictate we merely follow the example of other world empires, waste our resources in useless wars and then sink to the economic impotence that has been the fate of nations greedy for power. No nation can rule, no group of dogmas fit the whole world. Peace must come through the recognition of difference and through the growth of the spirit of toleration. This means progress by influence and example and not by struggle. The world needs not a dictator but some nation that lives up to the super standard and thus shows the possibility of a peaceful progress. Should America become such a people, avoiding the degradation that suspicion and hatred engendered, we should have a host of imitators. It is our misfortune if not our fault that we no longer hold the high position our fathers held in leading democratic movements. Our sympathies have overridden our reason. Only clear thinking can restore the loss. Fair dealing must replace the growing partiality that recent events have promoted.

The war spirit is an instilled attitude due to the wrong education and not to the natural emotions men inherit. Recent evolution has changed all else but has not yet brought our national ideals into harmony with new conditions. In public affairs we have yet a class rule even in the nations where democracy is nominally supreme. Until the middle and lower classes question the supremacy of the upper class our government will not be a model for world imitation. There is degeneration above to offset the uplift below. When this anomaly is removed peace, good will and coöperation will displace international entanglements.

Our ancestors were aggressive, but it was the aggression of a spontaneous vitality. No outlets for energy were available but in the crude conflicts that revealed personal superiority. To-day intense activity has a dozen outlets all superior to that of war. Achievement, wealth, science and social service drain off the energies and furnish the satisfactions that in cruder ages only combat gave. The effect of war on survival has also changed. Personal strife left the best and removed the incompetent. Gunpowder changed this survival value of war. The personal combat which the sword favored is displaced by long range fighting in which size and vigor are penalized. Corresponding to this change in evolutionary values is a change of motive. Our forbears fought because they loved fighting. They glorified in aggression. To-day nations war not for a love of fighting, but for fear of invasion. It is interesting that every nation in the present war regards itself as on the defensive. The appeal is to fear and not to glory. Our wars are

not therefore a mark of super energy but of the growth of fear motives And what is fear but degeneration?

This thought leads to the essence of our situation from a physiological viewpoint. We are all familiar with the action of toxins on our system, but we are less familiar with the blood content that increases vigor and thus makes us aggressive and dynamic. As our vitality increases we go out of ourselves in bolder ways and meet our fellows either in coöperation or conflict. Toxins in the blood destroy this aggressive hopefulness, replacing it with depression and fear. When the motive for war becomes fear instead of joyful aggression we may be sure its source is not with an element of normal human nature but with a species of degeneration that affects particular groups. Fear is a class phenomenon, which is transformed into a national attitude by the control which class has over public opinion. Good vigorous blood flowing in the veins of every one might bring industrial evils through the personal aggression it excites but it would remove the degenerative fears that now overpower our upper class. We can thus cure war even if we cannot remove personal aggression. The one rests on a physical depression which may be avoided, while the other has its seat in an imperfectly developed human nature. Heredity has its faults, some of which it will be difficult to cure. But insanity is not one of them.[1]

The main thought of this paper is to make clear the difference between two plans to secure world peace: *Peace through force and peace without force.* Peace through victory must of necessity be an enforced peace. The vanquished must be ruled at our expense. Peace without force means a yielding of the strong, not the submission of the weak. Wrongs must be righted before enforcing claims even though these claims be just. Can we yield to a nation in the wrong and yet promote world justice? This is the test of a peace without victory, of a world not coerced by force. It is not the insistence on our rights but on our neighbors' wrongs that makes for world betterment. Nations are often unruly, emotional and stubborn, but they need forgiveness more than punishment. In local affairs we may let the majority dictate, but liberty should be our guide in world decisions. Toleration is more moral than right, more luminous than truth, a sounder principle than justice and more divine than retribution. Without it no democracy can exist. Its basis is a peace that endures because it is loved. Battleships and machine guns cannot do what simpler forces do through the radiating influence of comradeship and good will.

[1] The thought here becomes clearer when read in connection with some other of Dr. Patten's work written contemporaneously but not published in this volume. I refer to the work of his later years in economic psychology. R. G. T.

MANDEVILLE IN THE TWENTIETH CENTURY[1]

IT is often stated that Adam Smith wrote to refute the doctrines of the mercantile school. It is Mandeville, however, who started the series of discussions which led up to the *Wealth of Nations*. No sooner had the *Fable of the Bees* appeared than replies began, each doing something to overturn the despised doctrine. What others failed to do, Smith succeeded in doing, and his book has been ever since a storehouse of arguments for economic orthodoxy. But doctrines though refuted loom up at each new national crisis with the same vigor and plausibility as had their originals. Is spending beneficial to trade? is answered in the affirmative by as eager a host of popular writers as those of Mandeville's time. They would not say that the burning of London was good for trade, but they assume that expenditure for war makes a nation rich. They might not say that the sinking of a ship was beneficial, but if submarines sink a third of what we send abroad they would affirm that business was increased thereby. "Even the worst do something for public good"; would now be interpreted to mean that German frightfulness makes business lively by making the more work. Think of how rich we will make ourselves rebuilding the desolate regions of Belgium, North France, and Poland. Surely if work is the essence of trade there is plenty of it ahead of us. If we can keep up our spending and carry on the War at the same time, Mandeville is right. And so is he if we are made richer by the bonds we issue. Twenty billions of bonds, we are told, makes us twenty billions richer. "Buy a bond and pass it on" is a slogan equal in cogency to any of Mandeville's sayings. As the doctrine has been put into verse, it deserves being perpetuated and placed in the same category as the *Fable of the Bees*. Here it is as written by Mr. Foley, an advertising expert. If this is not inflation, what is? Could paper money do more?

Buy a Bond and Pass It Along

Tom Robinson, the plumber, bought a hundred-dollar bond.
Though he truly loved his country, of his cash he sure was fond.
"I've bought because it's duty," said he to Doctor Jones.
"I've got to do my bit to help the Allied loans."

The Doctor said: "I bought some bonds, then with them bought a car.
You owe me just a hundred." Said the plumber: "There you are."

[1] Reprinted from *The American Economic Review*, Vol. VIII, pp. 88–98, March, 1918. A reply to this article called "Mandeville in the Twentieth Century Replies" by Professors Seligman and Hollander was printed in a later issue of the *American Economic Review*.

And handed Jones his new-bought bond; then Jones paid off a debt
Of a hundred, to the furrier—before he could forget.

The furrier had bought some clothes—an honest man was he—
"Let's pay with Uncle Sam's good bond that helps to set men free!"
And so he paid. The clothier squared up an old account
With his jobber—so the bond went on, intact in its amount.

The jobber owed the grocer for the things his family ate.
Said he: "I'll pay in Libertys—you need no longer wait."
Then the grocer paid the butcher, who owed the carpet store,
And he in turn reduced his debt and helped along the war.

"I'd like to buy a dress now," said the carpet merchant's wife,
"A hundred-dollar one will do—with bargains stores are rife."
The modiste got the bond. Said she: "I know what I will do.
I'll have the bathroom fixed up fine and made to look like new."

And so, ere long, Tom Robinson, the plumber, had his bond
And no one in the country will be quicker to respond
When Uncle Sam's next loan appears. The moral of this tale
Is Buy a Bond and Pass It On—our country cannot fail.

Were this merely the voice of the street it might be overlooked, but it is what editors, orators, bankers, and officials are saying in a thousand forms. It is spoken as clearly as was the famous dictum of Jay Cooke during the Civil War that a national debt was a national blessing. We extol the bond and avoid the tax. War thus not only brings glory but also wealth. The more we spend the richer we are. These doctrines of the press and the platform also find an echo among the economists, who, forgetting their traditions, join in the popular clamor. There are two causes for this. Economists have the same emotions as other people and find it hard to resist the cry of the street. They seek some compromise by which their feelings and their principles may be harmonized. Victory first and sound reasoning afterwards. Nor are economists free from class bias. Taxation they hate as it bears heavily on the class they represent. Where can one find a discussion of taxation that is not a tirade against the evils of taxation? This attitude degrades the scientific discussion of taxation into a plea for tax exemption. The only good tax is the one some one else pays.

It would be a useless task to flag some unknown scientist for these errors. The defense of economic theory must be made against those in high places or its cause will be lost. We cannot expect the man of the street or the rising host of young economists to stand for economic integrity if our best known economists fail in the task which rightly belongs to them.[1]

One of the ways of discrediting an opponent is to assert the newness of his doctrine and thus to put on him the burden of seeming to overthrow

[1] Examples of what I regard as unsound reasoning may be found in recent papers read before the American Academy of Political and Social Science, as "Do Government Loans Cause Inflation?" J. H. Hollander; "Loans vs. Taxes in War Finance," E. R. A. Seligman, *Annals of the American Academy*, Jan., 1918.

established positions. Dr. Hollander, for example, finds that "the resistance to funding in war finance" was first explicitly stated by Mr. Pigou in 1916 and regards it "both as a melancholy example of scientific lapse and as a mischief-making error." What of this statement made not in 1916 but in 1808? "Were I a minister of Great Britain I would tax the country up to the fullest measure of public necessities and though the voice of obloquy arose from every corner of the empire I would brave it."[1] If this is not clear enough, take another quotation from the same author. "The important deduction to be made from this argument is that when the government defrays any of its expenses by borrowing, it does so by a method which is doubly more burdensome to the country than when it defrays the expense by taxes raised within the year."[2] Chalmers' view was restated by Mill in his third proposition respecting capital and has ever since been regarded as an essential part of economic theory. Dr. Hollander's position is a crude form of the quantity theory of money. About its assumptions I shall not argue, because the issue lies at other points. This theory belongs to the group of which the wage fund, the law of diminishing returns, and the doctrine of laissez faire are notable instances. They are built on the assumption that the economist can sit in his study and know what is going on outside, without looking out. When economists become pragmatic, they define inflation and study its manifestations before they theorize about it. Is Mr. Foley's position sound, and is it or is it not the popular method of representing the possibilities of bond issues? Are we trying to do business as usual and buy bonds without saving, or is it economy not only preached but practiced? What evidence have we that popular savings correspond to the amount of bond issues? Are the major part of the national bonds still held by the banks or have they passed into the hands of the investing public? From these facts we may learn what inflation is and how to test its presence. The decision does not depend on the quantity theory of money nor is it a deduction therefrom. Inflation is an overestimate of present powers to consume. It is a rise in prices without a corresponding rise in the physical costs of production. If the resulting state is not to be called inflation it at least deserves study. There is plenty of evidence of rising values, but none of an increase of physical costs. The efficiency of labor is greater than it ever was. This means more free income but it does not indicate an increase of saving. What comes easily goes with even greater ease. I can find no evidence that the American people have as yet materially reduced their consumption of goods. Most of the items which I have been able to check show increases and the news summaries reveal the same tendency. Dr. Hollander must show facts as well as make assertions.

Professor Seligman is not so bold a theorist as Dr. Hollander, but he has an overconfidence which leads him to give his opponents the long end of the lever and thus to deprive his argument of its plausibility. He admits that the objective costs of the war must be borne by the present. War con-

[1] Thomas Chalmers, *National Resources*, p. 306.
[2] *On Political Economy* (1832), p. 492.

sumes commodities and demands service. Both must be met by present exertions. But he claims the real costs of the war are the subjective losses which it imposes. These he claims can be postponed, and thus a part of the burden may be passed on to the future. In recent years an emphasis has been placed on the subjective elements in economic theory. I have done my part in this work and do not wish to retract what I have said. But Dr. Seligman neglects the important background to all theorizing. The subjective is not economics but psychology. We must use psychology not to reach a final settlement of economic doctrine, but to handle problems of which the objective data are still unknown. Take, for example, early discussions of the consumption of wealth. At that time no elaborate statistical data of the food supply were at hand. The only tests were crude measures of our eagerness for food. Much was thus added to our knowledge of the standard of living. But such reasoning, valuable as it is, cannot be put in opposition to the facts we now have as to the necessary elements in national nurture. When we have the facts our psychologic estimates go by the board. Knowing how many calories are needed to support an efficient worker, his likes and dislikes are a matter of no moment. If he suppresses his feelings and lives as he should he prospers. If his psychic antipathies are too strong to permit an adjustment to the new conditions he must be regarded as defective. Our feelings are our best standards so long as objective data fail, but to put feelings in opposition to fact is to oppose knowledge.

It would be interesting to have Dr. Seligman state just what these subjective costs are which he thinks could be postponed. Only when this is done can we estimate their value. Were they stated they would be found to be feelings which we compensate in the future at our peril. One of the benefits of the war, perhaps its greatest compensation, is the removal of disadjustive feelings—those which in a cruder civilization were of use, but which now have become bars to further progress. When we see the change which increasing knowledge has brought in regard to liquor we may hope that many more changes are in sight where objective fact will displace subjective estimate. The time has come for economists to base their arguments on known facts. When they do we shall hear nothing more of repaying in the future the burden of subjective cost borne to-day by those whose estimates of their welfare do not tally with present reality. Only those can be happy whose ideals, concepts, and feelings are grounded on the world about us. It is we who should adjust ourselves to Nature and not Nature that must change to meet our whims.

We now come to Professor Seligman's main thesis. Must the costs of the war be borne by the present, or can the burden be shared with the future? The answer to this question depends on the meaning attached to the terms. How long a period is the present and how far off is the future? To make the terms definite, I shall assume that the present means the period in which the present holders of property must bear the burdens imposed and that the future means the time when the next generation assumes

the burdens of taxation. The present then means the period of the war or at least the next two or three years. The future is twenty or more years distant. Thus stated, we have a problem which may be solved. It is, however, not a solution to show that the present may burden the future. We do this by every false move we make. It is one thing to burden and quite another to so burden that the present may obtain some relief. It is only the latter case which is worth discussing. The illustrations used by Dr. Seligman relate to the replacement of capital and to overstrain imposed on the laborer. In these cases he has not examined the evidence as carefully as he should. It is possible to delay the replacement of a plant, but this brings with it immediate losses to national efficiency if the plant is essential to the prosecution of the war. The railroads have been sparing for the last few years in replacing their rolling stock and in enlarging their trackage, but to-day we find they have placed a huge burden on the present by their false economy. We suffer from high prices in a way we could have avoided if the railroads had enlarged their rolling stock as they should. What is true in this case is equally true in every essential industry. The lesson of the war is that victory comes by industry behind the lines more than by that in the trenches. Enormous quantities of fixed and circulating capital are thus demanded beyond the normal needs of times of peace. Equally true is the limit to the exploitation of labor. For a few weeks a worker can stand an overstrain, but the lesson of the war is that the hours of work must be shortened and labor conditions improved to get the maximum efficiency from laborers. The opposite of Dr. Seligman's contention is, therefore, true. To minimize its burden the present must not only bear the expense of the armies but it must reduce its consumption still further so that fixed capital may be increased and labor better provided for. Any attempt to scrimp in these items increases present burdens through national inefficiency, and may even defeat the object for which the war is waged. If any expenditure is a necessity, that expenditure must be increased. The burden of the war must therefore fall on present consumption, which must be reduced by a sum equaling the cost of military expenditure plus that demanded by the increase of capital and the better care of labor. Comforts may be delayed but not necessities.

Professor Seligman's second point relates to the use of credit, which to many is an obscure phenomenon. In some mysterious way it can, they think, increase the efficiency of capital and labor. It may even, many contend, be a substitute for them. But if carefully defined terms are used, credit becomes a simple matter with advantages and limitations which may be clearly defined. The basis of credit is the period ensuing between the time when work is performed and that when the object is consumed. This may be measured by the stock on hand at a given moment or by the time the money of consumers lies in banks before being used. Bankers take advantage of this delay and loan their depositors' money on short-term notes. A second form of credit comes from the irregularity of business enterprise. There are few occupations but have slack seasons when all the capital is

not in use. Deposits are then increased and the banker may use these funds in places where there is a present urgency. Both these forms of credit are useful, but it should be noticed how short is the delay in each case. Legitimate banking is restricted to commercial paper running not more than ninety days, while long-term credits should be forbidden by law. It is what the law should not permit the banker to do in his regular business which Dr. Seligman advocates. To treasury notes having a short time to run there is no objection provided they are taken up at maturity. But long-term bonds cannot fulfill these conditions. By tying up the consumer's money, they prevent him from using it to meet current expenses. Such a use of credit is sure to bring disaster not only in the future but also to those of the present who share its prosperity. Credit is thus a temporary means of delay but not an available resort for those who would shirk present burdens at the expense of those who come after. It would be more truthful to call the present a cash economy than to call it a credit economy. The vast bank deposits show that the consumer is forehanded and wants to consume instead of rushing ahead with credit expenditures. He knows that cash payments reduce present burdens. To work and then enjoy creates economies which to enjoy before working never produces. The nearer we come to eliminating credit, except in the instance noted, the better for the nation. Would our public affairs were managed with the acuteness with which we manage our own accounts.

To make this point clear I must question another of Dr. Seligman's statements. All credit, he says, rests on a substratum of cash. The fact, however, is that cash rests on credit and not credit on cash. Grant a certain quantity of delayed consumption on the part of consumers and the quantity of credit is fixed. Then it becomes a matter of experience how much cash is needed to meet the exigencies which arise from consumers' demands. If business were regular and the moods of consumers unchangeable, little cash would be required. The receipts and outlays of each day would be unvarying. But experience shows that this is not the case. There are fluctuations in demand which sometimes rise to a third of the deposits while again they fall so low that call money has a nominal cost. Bank reserves have a relation to these irregularities. They are the result of credits and not their cause. We do not get at their source by regarding them as a monetary phenomenon. They form primarily an index of delays in consumption, and grow not as consumers fall behind in their payments and thus create debts; but as they are forehanded and wait after production for some favorable opportunity to invest. Odd as it may seem, bank credits grow with cash payments and not with the increase of debt making. They are advances by the consumer to the producer, not cash advances by banks to those consumers who lag in their payments. When this is seen the benefits and limits of bank credits become apparent. The length of particular credits cannot safely exceed the average delay of the consumer in making purchases. We are learning that we must go behind monetary statements and actually measure the goods and food in stock. What food controllers

and business controllers do in time of war to avoid exorbitant prices will be done as a regular matter after the war. We shall keep our eyes on the consumer and limit the banks to their proper place.

To focus the attention on the essential, we must contrast the agencies which promote consumption and those which delay it. From lack of a careful analysis we are apt to confuse the two by assuming that the banker does both. This may be true of individual bankers, but if so they use two distinct agencies to secure their ends. Promoting business is done not through banks but through newspapers, advertising, and salesmen. It is an art distinct from banking and demands men of other capabilities. The habit of men who want business is to advertise, and to do this successfully they must control the newspapers and other agencies which form public opinions. A man who wants more business does not go to a bank and ask for extension of credit. He advertises, gets business, and then goes to the bank for means to enlarge his plant. If he gets consumers to buy before the bank enlarges his credits, the action of the bank is legitimate even if it promotes unproductive consumption. The banker has the consumer's money. He does legitimate business if he loans this money to those from whom the consumer will ultimately purchase. Suppose a banker loans his deposits to plowmakers when his farmer depositors mean to buy automobiles or that he loans the funds of his city depositors to housebuilders when they mean to buy pianos. In each case he would be misdirecting the wealth of the country with the result that production and profits would be reduced. He should loan to those who have business and not to those who ought to have business. The consumer is thus the ultimate director of production, and the people who guide him are those who set the pace in business affairs. So long as they control public opinion the banker is powerless to resist the overconsumption which they encourage. They induce consumers to believe they are wealthier than they are, and that their funds can be used in two or more ways at the same time.

Mr. Foley's scheme of passing bonds along is not the only means of promoting overconsumption. A man may keep his bond and yet, assuming it to be cash instead of wealth already spent, he may order a new bathtub for the home, a new dress for his wife, or any other expenditure his newspaper reading encourages. It is the belief that he is wealthier than he is which leads to these indulgences for which not the banker but the advertising expert is responsible. Why should we not spend when we are taught that our money can go in several ways at the same time? Why not inculcate patriotism in our children by letting them buy savings stamps and then use the stamps to buy candy? Or why not buy a bond and then exchange the bond for a suit of clothes, an automobile or a piano? If one wishes to be doubly generous, why not buy a bond and then give it to the Red Cross or to some local charity? Patriotism, charity, and pleasures are thus combined.

Criticism, however accurate, is misplaced unless it is accompanied with positive views. The problem of loans and taxation is becoming the test of

two systems of economics as diverse in their aims as the mercantile system and that of Adam Smith. A compromise between Smith and a mercantilist is impossible and so is a tax system partly resting on bonds and partly on taxation. As principles differ so also do the presuppositions on which the theories rest. The problem to be solved is, how can a nation with an annual surplus of three billion dollars spend ten billions in a year? It is immaterial whether this surplus is three or five billions or the expenditure ten or fifteen billions. If the surplus exceeds the expenditure whether by one sum or another, all that Dr. Seligman says holds true. But in the reverse case if the expenditure exceeds the surplus the importance of his discussion is reduced and some new theory is demanded to meet conditions which older economists were not compelled to face. Despite the sorrows and laments of the taxpayers the world has never before spent in a given epoch more than it produced. How nations can do this is a question seriously asked and one which must be answered with a like seriousness. There is but one reply possible. The daily consumption of the people must be reduced to correspond to the excess of expenditure over the annual national surplus. Any subterfuge leads to a worse deficit and adds to the danger of a failure of national aims. Bonding is a device of this character. It induces people to think they can grow rich in the unproductive expenditures of the state. Consumption is expanded when it should be contracted. A shortage of goods follows and then come high prices, which make people believe they are more prosperous instead of less so. Taxation if wisely laid would bring order out of chaos and not only exempt future generations from the burdens of war but also lighten those of the present.

In essence, the burden of the war is the excess of national expenditures over national surplus. To this amount the consumption of the people must be reduced. If expenditures are, say, seven billion dollars, consumption would be reduced by this amount and the saving turned over to the government. The account is thus squared in each year and the war is paid for but once. But if, instead of adopting this simple solution, the people try to avoid the burden through loans, what happens? The seven billions needed does not come down out of the clouds. It cannot come out of the annual surplus because this sum is the excess of expenditure above the annual surplus. There is only one way out. The government must cause or permit a rise of prices which increases the profits of individuals. It then borrows of these profiteers the seven billions it needs. Dr. Seligman thinks it suicidal to take seven billions directly and yet the policy adopted takes double the amount from the people's pockets. Here are the figures showing what happens. The agricultural products of this year are valued at twenty-one billion dollars. Practically the same quantities five years ago were worth only ten billion dollars. An able economist estimates that it takes now fifty billion dollars for the American people to secure what they obtained for thirty billions before the war. This shows that the people are paying two dollars in increased prices for every dollar the government benefits by loans. Ten billions have dropped somewhere

on the way. This tallies with another statement made by an equally eminent authority who says that during the past year five billion dollars have remained in the hands of corporations as undeclared dividends. If this is true, it will not be difficult to discover where the other five billions have gone. Not only have the people paid a double amount in consumption taxes but the capitalist has to pay it again. Someone has stated as a law that as the amount of government bonds increases the value of corporation securities decreases. Three payments of war expenses are thus the least which present methods of bonding permit, *two of which are in the present.* The consumer pays, the capitalist pays, and then one or both must pay again at the maturity of the bonds. If bondholders are to be exempt until the bonds are paid each one may figure for himself what future taxation will demand of him. And the misery of the situation is that this solution is the only one which has an opportunity to be used. Would that theorists were given a chance to test these claims! Practical men though they sit in high places and have imposing funerals lie in obscure graves.

I regret the difference which compels me to dissent from Dr. Seligman's position. Because of the popularity of views like those of Mr. Foley, it is important that economists present a sane program. So long as the ability of the nation to pay for the war at once and but once by taxation is in question, such an agreement is impossible. The second point of equal importance is that a higher rate of interest must be offered. Interest rates are four per cent too much or four per cent too low. They are too much if they are a bonus to those who profit by war expenditure. They are too low to arouse the thrift instinct in those who now spend as fast as they earn. As it is, war bonds are war profits and induce free spending instead of curbing it. No part of Dr. Seligman's argument justifies the statement that the full payment of war expenses by taxation would be suicidal. It belongs to a group of assumptions made by business men who have a defective view of their own welfare. An opposition to high wages, high rates of interest, to government restraint, and to taxation is the outspoken expression of this crude antipathy. Economists are not likely to adopt this code as a whole, but they are not free from the bias which this attitude creates. They overestimate the disadvantages which economic tranformations bring and underestimate their gains. I doubt if their fears will be justified by the results; but even if change proves damaging, it will do so only because they oppose changes which must come.

THE FALLACY OF PRICE BIDDING[1]

THE law of supply and demand assumes that a rising price tends to increase supply while falling prices lead to a reduced production. The basis of this generalization is an induction from the action of price changes on particular commodities or on a market of limited range. What our ancestors saw was the immediate effect of price changes. They had no means of estimating world phenomena. To us, however, a world economy is a reality and its fact as easily ascertained as are those of localities. As statistics are compiled it is easier to obtain the data of world industry than of local trade. What the trade of Philadelphia or New York is no one knows with the accuracy with which international figures are compiled. Price changes now affect the whole world or at least several nations. We can, therefore, trace their effects with a precision impossible even a generation ago.

Our fathers bid for commodities and saw as a result a flow of increased goods to their locality. They might know where the articles came from but they did not know what effect the withdrawal of these commodities had on the nations sending them. We now have the facts of both sides of the ledger or, better put, we have the ledger of the receiving and losing nations. On these facts our opinions should rest and not on the theories derived from the imperfect knowledge of the past.

English economic history affords examples of price bidding. The industrial revolution gave her such an advantage in production that she could underbid other nations in selling and overbid them in buying. Commodities fell in price while the price of food rose. The importations were mainly in wheat and the exportations in textile fabrics. Where did the wheat come from and was it an additional production or merely a withdrawal from other markets? The soil of Ireland had been used for the production of food for its own inhabitants of which there were about eight millions. The high price of wheat made it profitable to raise wheat for the English market. The home population was left unfed or forced to migrate. Ireland thus lost three million of her population due to the surplus being transported to England. It is usually said that the migration was due to the failure of the potato crop but this was the immediate, not the ultimate cause. Wheat and potatoes cannot be grown in the same field. The profitable crop displaces the less profitable, and the local population must adjust itself to the new situation. The same tendency showed itself earlier in the movement of population from the south to the north of Eng-

[1] Reprinted from *"The Annals of The American Academy of Political and Social Science,"* Vol. LXXVIII, pp. 129–43, July, 1918.

land. The industries of the north outbid the southern industries for the food of England and as a result both food and population moved to the north. When such a change occurs within a nation the change is not noticed or, if seen, the transformation is accepted as an element in progress. This may be true, but where did the food come from? Was it a new creation due to its higher price or was it a withdrawal which forced a reduction of the population of some other regions? The answer in both these cases is the same. The food was a withdrawal, not a fresh creation. The places from which it came lost population to offset the gain of the new markets. Profits rose but not gross production. The gain was thus in net produce which was profitable to both parties making the exchange, while the interest of the people in the exporting country was ignored.

These facts are equally patent in the foreign countries from which England's food came. They lost their industries, sank or remained stationary in population. The landowners became local aristocrats who took the greater part of the gain which English commerce brought. We think of the prosperity which England obtained but overlook the advantage landed aristocrats obtained thereby in other lands. Our southern slaveholders are an illustration of this. The aristocracy of Poland gained its power to oppress by the exportation of wheat just as the southern slaveholder did by the exportation of cotton. The French Revolution had its background in the same cause. England could pay more for wheat than could the French artisans. The food went out and cheap goods came in. French workers were thus subjected to a double strain. They lost their food and their employment. The benefitted class was the French landlord. Where the food goes, there goes population; and with population comes wealth. The world is not the better from the change but some places or class may be. High prices and high net industry go together and make a civilization dominated by landlords and profit getting.

America at the present time faces this situation. We cannot draw goods from other nations: they are drawing goods from us. The advantages and detriments of our national policy can thus be measured by their effects at home. More corn or wheat means more home production, or a shift in the use of land from other to these uses. We must, therefore, measure both the gains and losses of crop transfers to ascertain the net results. Our country is not a huge wheat field but a series of belts, each fitted for some crop. We have a cotton belt, two wheat belts, a corn belt and other areas fitted for dairy products, sugar, rice and potatoes. In addition to lands good for these special purposes, we have a mass of poor land suited to none of our leading crops.

What is the effect of higher food prices on the good corn, cotton or wheat land; and then what is their effect on the poor land as above described? On good land higher prices have their effect in a higher price of land and in a greater net produce but not in an increase of gross produce. When prices go up, rent goes up more than proportionately, leaving the worker in a worse position than before. To say that the acreage is increased by 20 per

cent means nothing, therefore, if the new land is poor land. While some new fields come into use many more are going out of cultivation because of soil defects. The limits to our farm produce are thus definitely set until some transformation of our agriculture takes place introducing new crops or new methods of cultivation. Big changes will count but small ones make merely a temporary shifting of crops with no net gain.

Judged in this way, about four acres out of five of our farms must be classed as poor land. The marketable product of the country comes from this fifth acre. These good acres are now fully cultivated and from them the product is limited. From the other four acres the return is diminishing even though by spurts some increase is possible. Poor lands in this sense are those which are hard of cultivation or when cultivated soon lose their fertility. Rocky land is an illustration of the first type and a hillside of the second. When prices rise the farmer reduces the subsidiary crops on which the permanence of fertility depends and devotes more acres to the paying crop. A greater net produce results without an increase in the gross produce. This, however, is only the first stage of the pressure of high prices. The high price of land favors tenant farming. The owner lives off his net produce while a shiftless tenant does the work. This tendency is apparent in every section where high land prices prevail. The present increase of food prices if permanent will make tenant farming universal. We shall have a dozen Irelands with the misery which such conditions create.

High prices for good lands mean rich landlords but not full bins from which consumers may draw. This loss is not greater than that which price bidding brings to the poor lands of the nation. It induces people to raise crops for which the land is not fitted. The urban public does not realize the marked difference in the productivity of land in localities not far apart. Places in and out of the corn belt often not 25 miles apart have a drop in production from 60 to 20 bushels an acre. The doubling of the price will not make this land a profitable venture. We hear, for example, that two dollars a bushel is not enough to make wheat growing pay. This is not a wild assertion but is true of four-fifths of the land of the country. The same facts hold for corn, cotton or any other crop. The use of poor lands increases waste and causes the misapplication of labor and capital.

The effect of price bidding in food products was fully worked out in England during the Napoleonic wars. The prices being high it was assumed that farmers were prosperous. Yet an examination showed that the most of them were losing money either because of the high rent they were paying or because of the attempt to grow wheat on land not fitted for its production. We will find the same facts and the same failure if we care to examine the condition of our farmers. They have tried cropping of the good lands and the conversion of poor lands to new uses. Both are failing not only to increase our gross produce but also to create agricultural prosperity. Farmers are asked to augment their production this year by 25 per cent but we shall be lucky if there is not an actual decrease. Wrong methods of agriculture quickly bring their results in discouragement and

failure. The bitter lessons are not forgotten for a generation, during which time the nation will suffer a shortage of food.

The American people escaped from the burden of the Civil War by opening up new areas, but this way of escape is no longer possible. All the good lands are in use. Nor are any great industrial inventions in sight such as gave progress in the epoch preceding 1910. Recent changes have been in the domain of consumption. We have built office buildings, department stores and apartment houses instead of giving the railroads the needed additions to their rolling stock. We thus live better, have more leisure, but produce just as we did ten years ago.

A rising price of some one commodity may under these conditions create an increase in its supply; but a similar rise in all commodities produces no effect but to disarrange industry. Wheat land can be used to raise corn or corn land for wheat but there is in each case a marked loss by the transfer. Raising the price of the one without a rise of price of the other will have an effect in the increase of quantity of the higher priced commodity; but if both rise in price, the net result is nil. To illustrate this, I shall give a table showing the price of land at which, for given crops, profit ceases. This is not meant to show the maximum price to which the best land can go. It is the relatively poor land whose use would be altered by the rising price of another commodity. When, for example, will it pay to change a cattle range to wheat production or to stop producing milk and other dairy products? Such questions may be answered by the following table:

Wheat	$50	Potatoes	$70
Corn	120	Rye	80
Oats	100	Dairy	60
Cotton	50	Cattle ranges	20

A glance at the table will show the changes which high prices are producing. They are reducing the supply of meat and milk, keeping the production of wheat stationary while corn and potatoes are increasing quantities. The shifts which high prices cause are losses since they force the use of land into unprofitable channels.

To make the bearing of these facts clear the reader must remember the importance of the weather in determining gross annual production. It is easy to arrange tables so that they seem to show the effects of prices on production, but it is equally easy to refute such claims by a full statement of the facts. The variations of the wheat crop amount to about 30 per cent, that of corn and oats to 20 per cent. Up and down the figures move from year to year but with slight increase in the totals if good years are compared with good years and not with the bad. We have reached the limits of our agricultural production unless some great change is made in the method of production or in the efficiency of agricultural labor. For a century we have extended our agricultural areas without such change in the methods of production. Farming as a trade has remained as it was

and land exploitation has been carried to a point where gross produce must soon suffer a reduction. We may hope for a stationary product but not for an increasing one. Price bidding does not alter these tendencies but aggravates them by its emphasis of net produce.

In the past we have relied on the importation of labor to augment production and not the increase of its productivity. Wages thus became a distributive problem, each group getting what its position compelled. The basis of this situation is changed by the check to immigration which the war has wrought. We have a fixed, not an increasing, labor force. If the demand of the war for soldiers continues our labor force will actually decrease. In either case we must measure the efficiency of labor by other rules than those in use before the war. Each industry is striving to increase its force or to hold its own by price bidding. The net result is a movement of labor from one occupation to others—a striving to do something new rather than the doing of familiar work in a better manner. Here as in farming we get confusion but not increased efficiency. The high wages make many careless and still more extravagant. Workers wander more than they work, and at their new tasks are less efficient than in those they left. Yet the problem is treated as if the new workers in each occupation were fresh immigrants instead of withdrawals from other occupations. We count what the new occupations gain but do not estimate the losses which other occupations suffer. A few employers may thus enlarge their output but national production will fall off. The net result of the shifting is a reduction in efficiency. High wages thus make for waste instead of promoting the desired ends for which they are given.

However solid the proof of the fallacy of price bidding, the problems involved are not solved by their statement. It is as necessary to show how production is increased as to show what measures fail to attain this end. This proof is secured not by a study of price movements but by a presentation of the facts on which great improvements in production depend. Antecedent to every increase of production, changes in the processes of production have occurred, and to these the enlarged product should be attributed. An increased population is accompanied by falling prices. These two are cause and effect and not rising prices and growing production. Of this fact sugar is a typical case. Formerly it was assumed that sugar cane depended on the sun for its production. Only sneers met the claims of those who wished to make sugar a northern product. Sugar beets throve in spite of this opposition and in the end made changes in the production of sugar which materially lowered its price. Not only did the product of the sugar beet become cheaper, but also the product of cane sugar was lowered in price along with an increase of quantity.

This was the first great victory of improved production over price bidding. The lesson was soon applied in other fields, by which changes in production were wrought which increased the product along with decreasing prices. We now know the importance of the potato in enabling Germany to free herself from foreign dependence as to her food supply. But for the

potato Germany would have starved into submission. While we see this we fail to realize that the method by which this large supply of potatoes was secured is the same in essence as that which augmented the supply of beet sugar. Many of the lands now so productive of potatoes were barren soil a century ago. Scientific investigation adapted the potato to these waste regions and a careful analysis of soils enabled the farmers to supply the elements needed for potato cultivation. It is to science and not to price bidding that Germany owes her salvation in both these cases. What Germany has done all other nations must do after the epoch of the extension of cultivated areas is past.

An apt illustration of these facts comes from the recent development of an English colony on the gold coast of West Africa. This region for centuries has been one of the most afflicted parts of the world. It was the center of the slave traffic and suffered all the ills which this trade imposes. In addition, it had one of the worst climates in the world. All the fatal tropical diseases burdened the land, making any improvement seemingly impossible. Yet of recent years a thriving civilization has arisen due to the cultivation of cocoa. A great bar of commerce existed in the presence of flies, which killed all beasts of burden, thus blocking the transportation of goods. This evil was remedied by the use of automobile trucks. The last obstacle to industrial progress was thus removed and the native population seemingly of the most degraded sort responded to the new situation and now market a third of the cocoa of the world. What rising prices never could have done a series of industrial and political changes has wrought. The world can increase its production many fold, but each increase must come from a better application of skill and knowledge to local conditions. Price bidding may be effective as a cause of agricultural extension, but it fails when the increased product must come by transforming poor land into good land or by the application of new processes to land already in use. Here increased knowledge and greater skill are the only agents in the transformation, and with their use prices fall. Beyond the limits to which any amount of price bidding will increase production is a gross product due to increased knowledge, which is cheaper than what price bidding produced.

The production of sheep and wool in England was stationary until improvements in food and in breeding were wrought. It was the turnip and the new breeds of sheep which increased production of wool and not its high market price. The changes in cattlebreeding both in regard to milk and beef tell the same story. The growth of these industries is a history of improved methods, each great change in the quantity produced being the consequence of antecedent stock improvements. These lessons America must take to heart if a remedy for our food shortage is to be found. High prices of food products will fail to stimulate an increase of their production. The remedy is in improved methods of production, bringing prosperity to the farmer but also cheapness and plenty to the consumer. We can have double the present agricultural output but only by methods which reduce its price.

These facts are as applicable to raw material as to agriculture. We are apt to think of ores as lying in beds of even composition ready to be more fully exploited through a rise of price. In fact, however, minerals are of very uneven compositions, the mass at any given time being of too low a grade to be worked with profit. Rising prices make good mines more profitable but exert little influence in making of low grade ores profitable adventures. They come into use through chemical discoveries which open up new ways of extracting ores from the material with which they are blended. It was not the high price of pig iron which led to the great increase of the steel industry which has recently taken place. It came with new processes for extracting ores and new economies in their manufacture. Of this fact the increase in the production of silver is a good example. Its output remained stable for many centuries, but little affected by its high price. What this high price failed to do, new processes due to an increase of chemical knowledge wrought. A rapid increase in production at a lower price followed. The history of every mineral product tells the same story. Stationary production is the accompaniment of high prices. We get increased production not in this way but by discovery, invention and increased knowledge, making the growth a result of these causes and not of price bidding. High prices is a distributive process creating profits, not a productive process augmenting production. Only when this is seen can an epoch of high prices like the present be understood. The urgency of war leads to vain attempts to speed up production. From them come high prices and inflation, but gross production is more often decreased than increased thereby.

The annual report to stockholders for 1917 from the United States Steel Corporation shows a falling-off of 5 per cent:

	1917	*1916*
Iron ore mined	31,781,769	33,355,169
Limestone quarried	6,494,917	7,023,474
Coal mined	31,496,823	32,768,381
Coke manufactured	17,461,675	18,901,962
Blast furnace production	15,652,928	17,607,637
Steel ingot production	20,285,061	20,910,589
Rolled steel products	14,942,911	15,460,792
	138,116,084	146,028,004

A rise of wages increases the net product so long as the physical standard of the laborer is improved. This standard was for city conditions about $800 per family at the prices prevailing before the war. Valid evidence also shows that the reduction in the hours of labor is advantageous to both employer and employee. Such changes should be regarded as a part of production and should be judged from their effects as measured by the gross product of industry. Up to a given point, therefore, a rise in wages or a reduction in the hours of labor is a problem of production and can have its effects measured in productive terms. To-day, however, wage bidding helps those whose wages are above that needed for a normal standard of liv-

ing. On a limited labor market each group of employers are bidding for workers, pulling them away from their customary work. I do not wish to imply that workers are not justified in making their demands as urgent as possible and in winning for themselves all the gain their advantages permit. At least they have as good a right to exploit their opportunity as have the other classes who profit by the war. It is one thing, however, to uphold them in their endeavor to alter the distribution of wealth in their favor and quite another to maintain that these higher wages increase the gross output of industry. The railroad workers are asking for an increase in wages which amounts to a hundred million dollars a year. If they get it, will their output be correspondingly increased or will their gains be to someone else's loss? The answer is obvious. There will be no change in the gross output of the railroads for the coming year which can be attributed to changes in the wage scale. Measure these increases by any objective standard and their effects on production will be too small to justify the outlay. What is true in this case is evident in the wage bidding which is occurring in the munition and ship building industries. Labor is disorganized by the inducements which wage bidding creates. The labor turnover is increased; men wander but do not work. The old wage would have produced a greater gross return. Even if the change in occupation came more slowly the new labor would have been more effective. A few experiments in the ship building enterprises should convince the public of the fallacy of price bidding in the domain of wages. A slower start would have produced earlier results.

All this does not mean that improvements in the condition of workers cannot be made. It only shows the fallacy of one way of making them. It is the conditions which surround the worker which determine his efficiency. Improvements in health, sanitation, housing and other elements in the home environment have a bearing on industrial efficiency and by them are the betterments of the workers to be measured. Price bidding thwarts what the local environment stimulates. It leads to dissatisfactions, to dissipation and to misplaced energy. Its lesson is therefore the same as that of other price bidding whether in food products or in raw material. There is an increase of waste but not of product. Increased production comes from an organization of the hitherto unused or partially used elements of the working population. It is easier to raise lower groups to a higher efficiency than to divert well paid workers from one occupation to another. A new industry in war time or in peace should build up its own labor force out of the misplaced or partially used workers. A worker's training can be readily acquired if the discipline and oversight is what it should be. The increase of production mainly depends on moving those below the normal standard of living up to this standard and not on giving more to those above this standard.

Why the moving of workers up to a decent standard of living is a productive problem is clearly shown by the rejection of recruits in the recent draft. Above 35 per cent of the recruits were rejected, of which 60 per

cent were for removable causes. It is also estimated on the basis of these facts that three-fifths of those between 31 and 45 are physically unfit for military duty. A half of the working population are thus below the normal level of physical vigor and of these more than a half are disabled from preventable causes. When we realize the reduction in labor efficiency which these effects cause, we can readily see what their removal means. Industry would gain both in its gross and net product if the cost of this removal were assessed against it. This shows what a living wage with proper care of health, sanitation and housing would do. The interest of every portion of society is promoted thereby. The sacrifices of the poor aid no one. They reduce both the gross and net return of industry.

The way to benefit the higher class of laborers is not by higher wages but by increased inducement to save. Price bidding makes spenders and increases both extravagance and waste. Saving aids production and modifies workers in ways which increase production. The man who spends all he earns, be he a worker or a salaried man, is dependent on a capitalist class and to increase production will in the long run be the victim of the social order his defects make necessary. It is higher rates of interest which the uplift of the worker demands. He needs motives to check spending and not a freedom to indulge his caprice.

Price bidding, whether in wages, food or raw material, is thus an evil which thwarts the ends which nations in periods of stress should promote. It creates personal gains at the expense of public welfare. It is thus an addition to the evils of war, causing a drain on national resources more pernicious than the losses in the battle field. We face a situation which demands more of all essential commodities and not more of some particular article. The increase cannot come from the outside world from which importations have ceased. The stimulus must arouse home production in every essential occupation. This price bidding cannot do. Only changes in the methods of production and in the efficiency and contentment of labor can remove the present shortage of commodities and restore the equilibrium in our national budget.

Prices rise through a pressure from consumers to augment their consumption. This rise is checked by the consumer's unwillingness to pay more or by his power of securing substitutes for the desired commodity. It is not the competition of producers which lowers prices but the ability of consumers to find substitutes. Prices fall through improvements in production. The fall of prices is checked by the withdrawal of producers through the increase of their costs. The rise of prices and the limits to this rise have their origin in the motives of the consumer. The check to the fall in prices comes from motives acting on producers. The antecedents of rising prices must therefore be sought among consumers while checks to falling prices, just as competition among consumers, fail to check their fall. The controlling motives in each case are those of withdrawal. It is he who refuses to produce and he who refuses to consume who fix

prices. The community gains neither by high prices nor by low prices. The nearer the level of normal prices is maintained the steadier will be the growth of national prosperity and the more effective will be the motives leading to increased production. Every nation must guard against the profiteering which high prices make and against the dissipation which low prices encourage. Price changes will cure neither of these evils. The remedy is price regulation to prevent upward movements in prices and rigid restraints on consumption to prevent a misuse of lowering prices. With the latter this paper has little to do except to point out their need. The evils of an upward trend of prices, however, have been shown, and hence arises the urgent need of price regulation. With normal prices the maximum of production could have been obtained if from the start a certainty of return and not a maximum of return had been guaranteed. Normal prices in this sense are a little above the price level of years of scarcity. It is this level which price regulation should seek to make stable. The speed at which the industries of an epoch of peace can be transformed to a war basis is the speed at which laborers can be trained in their occupations and machines adapted to new uses. We recognize that a raw recruit needs a year in which to become a trained soldier but we think a worker can be jerked from one occupation to another in a week. This delusion is delaying our war preparation. Had prices been regulated and price bidding avoided we would be months ahead of what we are. Only rigid price regulation and stern restraints on consumption will carry us successfully through a long war. We can rely on the individual motives neither of the producer nor consumer. Both need to be restrained in ways demanded by the public good. If we are not too long in learning this lesson we will not only win the war but be better prepared for the epoch of peace and prosperity which is to follow.[1]

[1] A table originally printed at the end of this article is omitted.

The reader will find his effort amply repaid if he will trouble to consult Professor Patten's other articles written fom 1915 to 1920. Some of them may be found as follows:

"Economic Fallacies that Favor War," *Moody's,* Vol. XVIII, pp. 13–17, Jan., 1915. "The War and the Stock Market," *Moody's,* Vol. XVIII, pp. 113–15, Mar., 1915. "The Future of the Stock Market," *Moody's,* Vol. XVIII, pp. 161–3, Apr., 1915. "Becoming American," *Open Court,* Vol. XXIX, pp. 385–93, July, 1915. "The Slump in Morality," *New Republic,* Vol. IV. p. 155, Sept. 11, 1915. "The Morality of Force," *New Republic,* Vol. IV, p. 286, Oct. 16, 1915. "Economic Zones and New Alignments of National Sentiment," *Survey,* Vol. XXXIII, pp. 612–3, Mar. 6, 1915. "The Unnatural Boundaries of European States," *Survey,* Vol. XXXIII, pp. 24–7, Apr. 3, 1915. "Territorial Expansion," *Univ. of Penna. Lectures,* 1914–15, pp. 199–209. The German Way of Thinking," *Forum,* Vol. LIV. pp. 18–26, July, 1915. "Taxation after the War," *Annals,* Vol. LXIV, pp. 210–14. "The Day of Financial Reckoning," *Moody's,* Vol. XIX, pp. 37–9, Jan., 1916. "Liquidation Taxes," *Annals,* Vol. LXXV, pp. 165–81, 1918 and "Making National Debts National Blessings," *Annals,* Vol. LXXXII, pp. 39–51, 1919. (See Bibliography of Patten's Work, *Annals,* May, 1923, by Rexford G. Tugwell). All these had to be omitted in this volume on account of the limitations of space. R. G. T.

THE FAILURE OF LIBERAL IDEALISM[1]

THERE is much in common between the period America is passing through to-day and the epoch in which the Federal Constitution was formed. In both cases the people lacked adequate knowledge with which to meet the problems of their time; and now as then, their attention has not been directed to objects of real importance. Our Constitution emphasizes the mechanism of government. Its framers were much concerned with the fall of Rome and the failure of Athenian democracy, but they gave little thought to those economic fundamentals upon which prosperity depends. It is often said that the financial provisions in the Constitution were due to Hamilton's foresight, but it may be doubted that he saw farther than the rest. Freedom of commerce was secured because no one deemed it important enough to be worth opposing. Each colony traded directly with foreign nations; inland commerce was negligible, largely because of the lack of roads. The provision against taxes on exports shows the type of trade that was then considered important. Had the Constitution been framed in 1830, the new opposition to free commerce would have forced some other solution. It was by a happy accident, therefore, and not through forethought, that our great Republic was started on the right track. But evil accidents are as likely to happen as good ones; we cannot expect that luck will always be on our side. A course plotted in accordance with our knowledge of what the future may bring—limited as that knowledge is—will serve us better than dependence on blind chance.

Where can one find a lucid statement of the economic problems which the American people face to-day? The League of Nations is at best a political mechanism, and discussion of it is reminiscent of the epoch during which the Constitution was formed. Our conscious interests are still in politics, race-rivalries, and national boundaries. Yet these problems are of minor importance by comparison with the neglected background of economic conditions.

The only worthy discussion of these conditions is that contained in Keynes's *Economic Consequences of the Peace,* but even here the content of the book does not correspond to its title. The personalities and failures of the peace conference make interesting reading, but after all, such reading does not take one very far towards solutions which somehow must be found. Moreover, Mr. Keynes's remedies are inadequate. To reduce the victors' claims against Germany is no cure for present ills. The losses of the war, perhaps three hundred billion dollars, must be paid by some one. To reduce Germany's share of the burden is to increase that of some one

[1] Reprinted from *The Freeman,* Vol. I, pp. 418–21, pp. 444–6, July 14 and 21, 1920.

else. Nor would the liquidation of the inter-Allied debt improve the present situation. The United States Government is neither demanding payment nor collecting interest just now. Such debts create no present burden, and are in no way the source of present distress. The evils of the war cut too deep to be healed by a mere exchange of paper. Real solutions must carry with them industrial transformations which will re-create the destroyed wealth.

Before the war Europe had an industrial system shaped by two centuries' growth. Populations had been re-located at points of industrial advantage. The lowlands were developed at the expense of the uplands; wherever coal was abundant cities grew; commercial ports increased in importance. But the boundary lines set up by the Versailles treaty attempt to alter all this. Generally speaking, the upland races were friends of the Allies; therefore they have been raised to the status of nationhood. To bring population back to the uplands, to take industry from the regions of coal and iron, to emphasize race-advantage instead of economic advantage, is to reduce the productivity of Central Europe by perhaps fifteen per cent. As the surplus never was more than ten per cent, the change destroys the basis on which highly developed modern industry rests.

In France we see this tendency in detail. France has had a stationary population for two centuries, for the reason that there are no great modern resources within her borders. France is for the most part a plain about 1200 feet above the ocean. This gave her an advantage when the interests of the civilized world were mainly agricultural; but modern industry has steadily passed beyond her borders and has become established on the lowland plains near the ocean and near the sources of coal and iron. To reverse this movement is the constant endeavor of French statesmen. But if they are to succeed, industry must be carried away from ports and coal-fields and lifted a thousand feet, up to the old level on which it throve five hundred years ago.

Before the Thirty Years' War, the center of German industry was in Bohemia, whence it has gradually been pushed over to the plains of north Germany, which were unused at that time. To this shifting of industry, coupled with a change in food due to the introduction of the potato, the rise of Prussia may be attributed; for the growth of Prussia was the inevitable consequence of tendencies which can not be reversed without a transformation of national surplus into deficit. All this is true of France, with additional evils due to a bad financial policy. Even before the war, the French government was piling up a debt due to an excess of expenditure over income. The war has transformed a difficult situation into an impossible one. France to-day owes about thirty-five billion dollars against an estimated property-value of seventy billions. The debt of France actually equals the value of her capital goods. Values are of two sorts: the goods, material, machinery, buildings, etc., by which production is carried on; and the agricultural lands, city real-estate, railroad-franchises, terminal-facilities and numerous private rights which share in the revenue produced by

labor and capital. In every advanced nation this latter group of values is as great as the capital used in production, and thus makes a great part of the estimated wealth. France may go on as she has gone this year, spending a billion francs more than her revenue, but in time the limit will be reached and then—disaster.

When we in this country attempt to measure our European obligations, we confuse two distinct problems; the relief of urgent physical distress, and the rehabilitation of destroyed European industry. Thinking of the treaty and a distant world-peace, we have neglected the relief of millions of people whom it was our plain duty to help. The expenditure of five hundred million dollars to prevent the sweep of disease and starvation in the war-areas would have built for us a monument of national glory; but to throw billions away in useless rehabilitation-projects is not merely a waste, it is a crime. If European statesmen want to put industries on the tops of mountains instead of in valleys; if they want to make Prague a seaport instead of Hamburg; they should do it at the expense of European exchequers, and thereby all concerned may learn a needed lesson. Industry can be profitable only when it is properly located and in the right hands. Let those who consent to such unintelligent management pay the bill; not we.

Our real concern, however, should be with the American situation, which calls for careful handling if we are to avoid the errors into which Europe is falling. A sound analysis cannot begin with war conditions, or with the easy assumption that our difficulties are temporary and due to war-costs. The war merely brought to a head certain forces that had long been active, forces that would have produced the same results even if no war had come. Thus the present writer predicted an epoch of high prices twenty years before it set in. The two main causes of our former cheap prices were the low cost of agricultural produce, resulting from the opening of the great West, and the discovery of ore-beds and of new processes of making steel. By 1900 all the great agricultural belts were in full use, with the result that since that year there has been an insufficient increase in agricultural production. This is not because there is not an abundance of unused land. As a matter of fact, only about a fifth of the total land-surface of this country is used for our great crops; but the remaining four-fifths lack some of the necessary conditions for profitable cultivation. They might occasionally produce a profitable harvest, but their cultivation year in and year out would result in a loss to their cultivator and a waste of national labor-force. The present prosperity of the farmer is due not to increased crops but to higher prices. Products have doubled in price without any substantial increase in volume of the product.

Just as the opening of the new century marked the end of our agricultural expansion, so 1910 marked the end of the increase in our production of minerals and metals. This was in part due to the lack of new ore-beds, but perhaps more largely to the development of monopoly-control over natural resources. Thus in our great iron industries, as in agriculture, we have mounting prices with no accompanying increase of production. Even

the war did not increase the production of steel; it merely altered the product, guns and cannon taking the place of building materials.

Long before the war it was apparent that if railway rates were to be lowered, new capital in vast amounts must be sunk in new construction. Many old mortgages also had to be re-financed. If both obligations were to be fulfilled, and cheaper transportation thus secured, a higher rate of interest was needed. But this was opposed in financial circles because a higher rate would lower the value of stocks. Even a one per cent rise would lower market-values by twenty billions. As a result of this opposition, necessary railway-improvements were not made; the financiers still hoped that a lower rate of interest would eventually prevail, and consequently they met old mortgages by negotiating temporary loans. As a result of all this, America entered the war with neither rolling-stock nor road-beds in a normal condition, and railway-equipment generally defective. We all know of the crisis which has resulted, but we do not realize that it would have come just the same if the world had remained at peace.

But behind this situation an even greater change has been going on. The consumption of the American people has been radically altered in character and in quality. New wants and standards have arisen; new sources of satisfaction have been acquired. In practically every direction the consumer has made large economies. Food has been economized, liquor banished, clothing standardized, housing improved, life prolonged and its enjoyments increased. Without attempting to explain these changes, we shall make an effort to point out their net effect. It may be estimated that from a given commodity-income, there may now be obtained something like thirty per cent more satisfaction than was possible twenty years ago. This increase of revenue is represented by a flow of real goods and satisfactions which come to the people as a whole each year, and which some one enjoys. The question, for the future, is: who is going to obtain this surplus, and what are to be the means of its distribution? The war has confused the problem and has given to events a complexity which makes solutions difficult. Only by separating these war-abnormalities from the natural results of industrial evolution, can we obtain a measure of the latter. In one way, war-difficulties constitute simply a speeding up of the evolutionary process which, without the war, might not have reached its present stage for a couple of generations.

The changes in consumption have brought with them a possible heightening of present pleasure which has disturbed the balance between present and future wants. The measure of this disturbance is the rate of interest. In the days of our fathers, four per cent net was sufficient to call into being the capital needed for production. With our keener love of present enjoyment, and in spite of our heightened powers of acquisition, this rate has failed to stimulate saving. One of three things has to happen: consumers must return to their former habits of saving, or industry must deteriorate, or a much higher rate of interest must be offered, with a quick decline in security-values as a result.

War-financing was regulated by these conditions. Financiers refused to permit high rates of interest because of the depression of stock-values which would result. Immense quantities of paper money were issued, and a free use of the machinery of the national banking system was allowed. Moreover, the stock of goods held in reserve was rapidly reduced. Even before our entrance into the war, the excess of exports over imports amounted to eight billion dollars a year. To-day the national shortage in goods and machinery probably amounts to twelve billion dollars; and this in itself is a more important cause of high prices than is currency-inflation. With little or no stock in reserve, it is an easy matter to engineer a "corner," as our profiteers have shown.

In simple terms, a summary of war-financing would run about as follows: Total war expenses, forty-five billions; stock-reduction accounted for ten billions of this amount; reinvested war profits for fifteen billions; bank investment, five billions; inflation, five billions; forced and voluntary contributions by the public, six billions; deterioration, three billions. If these figures are correct, we have a total war deficit of over twenty billions. Depreciation and the reduction in stock cannot safely be estimated at less than fifteen billions. At least half of our bank-deposits are consumers' funds, and are not designed for investment. People deposit their money in order that they may make cash purchases to better advantage. The share in war-loans contributed by the public alone, also came largely from consumers; that is, people bought bonds not as investment but because of temporary enthusiasm or social pressure. They have not changed the consumer's attitude; hence the eagerness to dispose of bonds in order that some taste for pleasure may be indulged. The restoration of normal conditions therefore, necessitates replacement of stock and the renewal of deteriorated property; but it also requires the producers to supply the public with ten billion dollars worth of goods they are longing to consume.

In many influential quarters it is being said that we should extend credit to the ruined people of Europe in order that they may be enabled to rehabilitate their industries. But real credit involves not merely a transfer of paper but of goods; and where and what are the goods of which our own market is not already short? What also can be done to satisfy the immense body of consumers who are trying to exchange bonds and bank-credits for pleasure-giving goods for their own use? We must solve these problems before we can be of aid to others. Every one agrees that present difficulties are economic; but instead of attempting to solve them or even to analyze them, we pass suddenly to political, moral, or emotional considerations. Mr. Wilson's Fourteen Points do not state the fundamentals upon which economic prosperity depends. Mr. Keynes supplies character-studies, expression of sympathy for the misfortunes of Central Europe, and certain prognostications as to the course of future events; but he offers no statement of economic principles and no adequate remedies for the evils he describes.

I shall here attempt to supply such a statement, since sound opinion may

not be arrived at otherwise than by such attempts. The economic damage which the war brought about in Europe was comparatively slight. Never before was a great war carried on with so little economic destruction. The devastated regions—Poland, Serbia, and the north of France—were of little importance to the world's commerce. The only industrial region seriously affected was Belgium; and here the losses were exaggerated for partisan purposes. The great industrial regions of the world, Germany, Austria, England, and America, were not touched. If with the signing of the armistice the armies had been immediately demobilized, workers would have found their homes, buildings, tools and machinery, very much as they had left them. Such stock-shortages and property-deterioration as existed would have been due to the lack of capital-replacement. The present suffering of Europe is not due to the war but to the peace which followed. The Allies, not Germany, are the destroyers of European industry.

It is true that the views of Mr. Wilson represented liberal ideals, but these ideals could not be translated into an economic program. Mr. Wilson, however, is not to blame for this. He merely stated clearly what other people felt obscurely. When put to the test, his ideals were not workable because they provoked economic antagonism instead of allaying it; and hence, when the crash came, Mr. Keynes and the American liberals slipped out from under and left Mr. Wilson to bear the blame for the liberal debacle.

That this was not Mr. Wilson's failure, but the failure of liberal idealism, may easily be shown if the economic principles that would have secured an enduring peace are set down. Only from such economic principles as those which follow can we obtain economic solutions:

1) Industries shall be located at points of greatest advantage;

2) Population shall adjust itself to industry, not industry to population;

3) Political units shall be formed of peoples with similar economic interests;

4) Group-determination shall displace individual determination in all group-decisions;

5) Freedom of occupation shall be guaranteed, except where it results in industrial inefficiency;

6) The minimum wage of each group shall be measured by the average efficiency of the group;

7) Taxation shall be imposed only upon those who enjoy superior advantage;

8) An increase of values shall be considered as income, not property; the claim of the public to such income shall be inalienable;

9) All grants to persons and corporations shall be revokable when their continuance is no longer in harmony with public interest;

10) Political rights shall be no defence of the individual against the mass, but a concession of the mass to the individual;

11) The claims of property, persons, and classes shall be conditioned by the needs of the whole people.

America has been made prosperous by the war, and with the possible exception of Russia, she possesses the largest aggregate of resources which has ever come into the hands of one nation. We are not an extravagant people; rather, we are economical, if that word is used in its proper sense; we are choosers, not wasters. Yet obviously there is something wrong—seriously wrong. We shall get nowhere by enumerating our great resources, or by denying the reality of popular discontent.

Neither war-expenditure nor waste and extravagance has created the present situation. We might have doubled our losses from both sources without suffering greatly, if the realities of the situation had only been consciously faced. But we ducked, evaded, and indulged in official misstatements, with the result that the public mind is confused and deceived as to the facts. We fought the war on high moral principles, but we lied about economic facts; and now these suppressed facts are coming up in disguised form to distort our view. The only cure is to bring out into the open what has been hidden. The chief misstatement was the colossal assertion that we could destroy billions of dollars worth of property and yet be richer than before; that people who bought bonds, the proceeds of which were used for war purposes, could regard these bonds as capital and receive an annual income from them. The result of this propaganda was that perhaps ten billion dollars of consumers' money was diverted to war purposes; the consumer thinking all the while that he could turn his investment into consumers' funds again whenever he so desired. In addition to this, the stocks of goods held by producers were greatly reduced. The war was financed by using ten billions of consumers' funds and fifteen billions of producers' stocks. The rest of the cost of the war went into producers' profits. But to-day, when consumers want to change their bonds into goods, there are no goods to give them. This is the history of high prices. Inflation, of course, has added somewhat to the evil, but that too is due to the same misstatement that deceived the consumer.

When resort is had to deceptions of this kind, there is always an underlying cause traceable to the controlling financial interests. This hidden cause was a wish to keep the rate of interest low so as not to reduce values. Every rise in the rate of interest revalues at a new rate all the securities on the market. To prevent this rise deceptions of all kinds were practiced. But in spite of all, the rate of interest has steadily risen from four to seven per cent, and is likely to rise higher. As a result, we not only have a pressure of consumers for non-existent goods but a tremendous over-valuation of securities which threatens to create a panic. Our sound industrial position, great resources, and increased personal efficiency all combined may easily be nullified by a minor evil which, too long neglected, has become tremendously powerful.

The cure is as evident as the diagnosis. In some way these unsatisfied consumers' claims must be taken off the market. The consumers must be made to see that their claims in bonds are not income which can be cashed in goods. Holders of securities must realize that their values, being ficti-

tious, must submit to reduction if the larger loss of a panic is to be avoided. It is at this point that the difference between economic and political solutions becomes apparent. All political solutions are demands that some one else should bear the burden of the war. Many are the devices of deception or of force designed to this end; and from them arises the confusion of the present situation.

Consumers and capitalists alike must look not to political but to economic means for a solution of their present woes. There are precedents in plenty, if we look for them in the right quarter. If a debtor fails to pay, business men no longer try to punish him; he is told to seek relief in a bankruptcy-court. To send him to prison only adds to costs, because it reduces his productivity. Compensation comes not through punishment or revenge, but by the reorganization of the debtor's business on a more effective basis. This plan was followed at the close of our Civil War. We did not impose the national debt upon the Southern States. We disbanded our army, and re-distributed our soldiers in industry in such a way that the war soon paid for itself by the mechanical inventions and agricultural improvements of which the discharged soldiers made use.

The first step in an economic solution of our present problems is a liquidation, not primarily for the benefit of the debtors, but to put our national finances on a sound basis. Then comes a readjustment of industry through which the loss may be more than retrieved. If it be asked what must be liquidated, the reply is: The consumers' claims for goods which were destroyed with their assent, even though they did not understand what this assent entailed when they gave it. These claims amount to about ten billion dollars; if they were cancelled, business could be put quickly on a sound basis. We do not have to liquidate all our national debt but only that part of it which constitutes a claim upon what has been destroyed.

What would be the effect of a ten billion dollar liquidation-tax, and how could it be administered? The public can be readily divided into three classes: economic slackers who avoided their war duties, profiteers who made money out of the war, and patriotic citizens who did their share. On the first two classes, no sympathy need be wasted. My own condition is perhaps fairly representative of the third class. In the spring the Government takes from me $100 and gives me back $90 as interest. Does this $90 constitute income, and how much should I lose if my bonds were turned in on a liquidation tax and I was freed from an income tax? Not a red cent, as I see it. It is of course deceptive to say that the $90 is income. The Government must take money out of present production before interest-payment can be made. If the principal is finally paid, the money must be first extracted with costs. It is sheer deception to call this money income, and it is a similar deception to suppose that I lose by a bond-cancellation made on any fair basis. The only hope of real income from this source lies in the exploitation of some one else for my benefit. From whom is the income to be derived—the worker, the slacker or the profiteer?

The real opposition to a just liquidation would not come from the con-

sumer, but from the financier. It is the financier that has opposed the higher rate of interest needed to provoke real saving, because of its effect upon security-values. While consumers cannot possibly avoid loss, the financiers think that they themselves can.

The capital needed for production can be obtained only in two ways: by such a rise in the rate of interest as will induce consumers to restrict their expenditure, or by an increase in the rate of profits which would enable producers to turn their surplus into capital. High profits mean high prices. The consumer's choice is thus between a high rate of interest which would induce him to save, and high prices which enable producers to turn surplus into property. In either case the cost is the consumer's. In the one case, he owns the capital and enjoys the income; in the other, neither capital nor income is his.

During the last twenty years about ten billions of annual income has accrued to the American people because of improved production. As the property of a special class, the accumulated total of this income would be valued at two hundred billions. Of this income, about half has already been appropriated as property-values. The rise of property-values during this period has been more than one hundred billions. Shall the rest go the same way, or shall it be utilized to increase the income of consumers?

Already the process of increasing capital-values has begun all over again. If no new railway legislation had been passed and rates had remained as they were, the value of railway property would fall to about twenty billions. A billion dollars in revenue, and hence twenty billions in values, was thus at stake, and in its disposition the public has lost out. And thus one of the five billions of undisposed annual revenue is lost. Other decisions will involve the rest, since the railways are not the only claimant of the new revenue. Beside the railways there are the industrial trusts, retail profits, farm-lands, and city real-estate. The division will probably assign about twenty billion dollars worth of values to each of these four interests.

The division of the stake is imminent. The coming presidential election will decide the division of income and the trend of property-values for a generation. There is little hope that this free income, once transformed into property-rights, can be restored to consumers. In the courts, property-rights are sacred. Judicial reasoning takes this form: "An increase of return should go to capitalists because of the risk they face; but if losses arise, capital should be guaranteed the expected return." Good law is thus bad economics. By this I mean that if the courts follow the precedents of previous decisions, the obstacles resulting therefrom will seriously impede economic advance. While the legalists protect the individuals and corporations who would lose by industrial advance, they fail to realize the injury they are inflicting on the unseen masses not represented in the courts. Prevention is the only cure, and prevention demands immediate activity in this formative period through which we are passing.

In the analysis I have made in this paper, I have attempted to show what is at stake, and why accepted measures have failed. No individual is to

blame. The failure is due to the wholly unworkable nature of liberal ideals. Solutions have been sought where they could not be found; the present disastrous state of Europe results from this fact, and not, as I have pointed out, from the destruction incident to war. In a year we could have replaced what the war destroyed; but a century may pass before the errors of contemporary statesmen can be corrected. The ruin we behold is the ruin of ideals, not the ruin of materials.

What is true of Europe is equally true of America. Apply here the same principles or the same lack of principles—it does not matter what it is called—and an irrepressible conflict arises, not because of any danger of starvation, but because of the grinding pressure upon income, which all must feel. The conflict is not one of class or locality; it is the insurgence of the disillusioned masses.

THE END

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